NEDİA FIBER

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FIBER OPTIC CABLES

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NEDIA FIBER

NEDIA FIBER, a subsidiary of NEDIA Enterprises, draws on over 25 years of expertise in bioengineering infrastructure solutions. NEDIA Enterprises, the parent company, is renowned for its specialization in erosion control and bioengineering products, underpinned by a strong commitment to sustainability and innovation, which has solidified its leadership in the industry.

Building on this legacy, NEDIA is expanding into the fiber optic sector. Leveraging over 25 years of strategic partnerships with their manufacturing partners, NEDIA FIBER is poised to become a key supplier of fiber optic products and solutions. This collaboration enables NEDIA FIBER to offer high-performance optical fiber cables throughout the Americas, enhancing the region's telecommunications infrastructure with advanced, reliable connectivity solutions to meet the increasing demand.

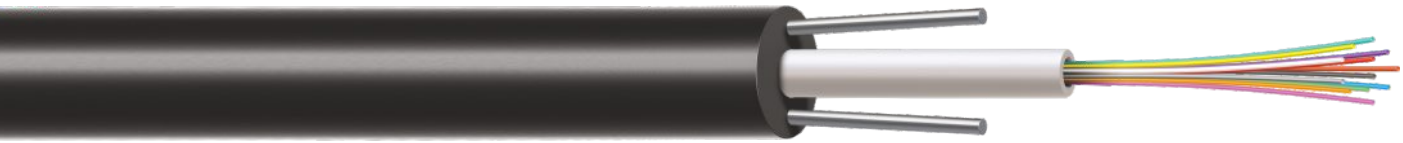
Fiber Optic Cables

2F-24F CENTRAL-TUBE UNARMOURED OPTICAL FIBER CABLE

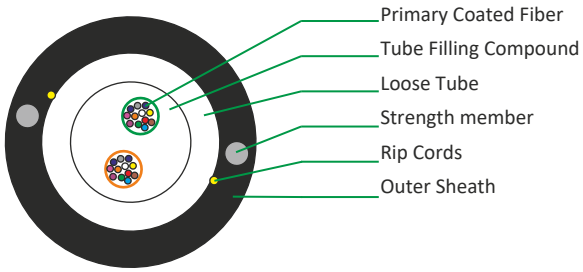
Water blocked | Outdoor | Underground | Metro | RoHS compliant

Applications

- Suitable for Duct Installation
- For CATV application, aerial application along with messanger wire



Typical Cross section of 24 Fiber



Cable Construction Details

- Up to 48 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- Metallic, anti-buckling Steel rod as Strength Member. embedded in outer sheath (also available with non metallic strength member, FRP rod)
- Loose buffer tube fully filled and Centrally placed in the cable
- UV Stablized PE outer sheath, black (also available with HFFR / FR PVC)

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
UPTO 12F	6.5	30	400	200	10D	20D	-10° to +50° C	-40° to +70° C
24F	7.0	40	400	200	10D	20D	-10° to +50° C	-40° to +70° C

Colour Coding - Fiber

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

* For Fiber count more than 12F, bundles in multiple of 12F will be formed with color identification binder (Blue, Orange, Green & Brown)

Special Features

Lighter weight cable for faster and easier installation

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

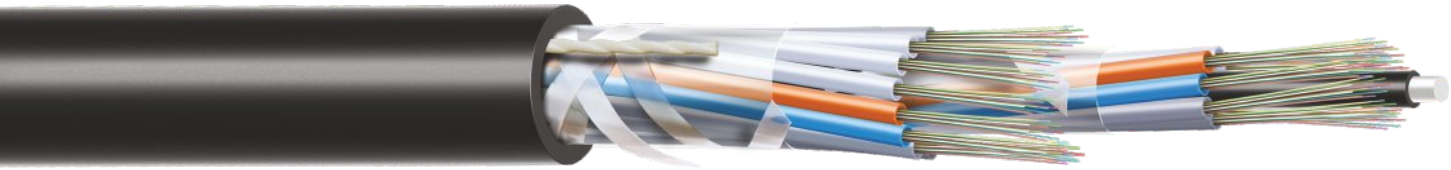
Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, r= 20 X D, 5 Kg Load, D = D = Cable Diameter
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle (± 360°5 Kg Weight, L= 2 Mtr
Crush Resistance [IEC 60794-1-2-E3]	1000 N (100 X 100 mm) for 600 sec
Impact Resistance [IEC 60794-1-2-E4]	5nm, 3 Nos
Kink Resistance [IEC 60794-1-2-E10] 10 x D, D = Cable D	
Water Penetration [IEC 60794-1-2-F5B]	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

12F-864F MULTI-TUBE SINGLE SHEATH UNARMOURED CABLE

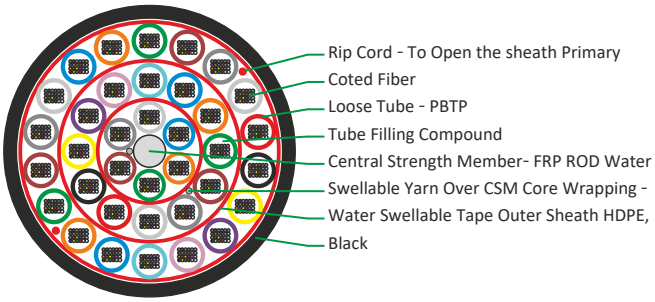
Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

Suitable for Duct Installation, pulled & blown.



Typical Cross section of 864 Fiber



Cable Construction Details

- Up to 864 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber). 6/8/12/24 fiber per tube combinations are available in 6/8/12/18/24/36 element constructions.
- Non metallic anti-buckling FRP rod as Central Strength Member.
- Loose buffer tubes fully filled with Thixotropic Jelly & Fibers.
- Loose buffer tubes S-Z Stranded (Water Swellable Yarn over CSM).
- Cable core is Dry & wrapped with water swellable tape.
- UV Stabilized PE outer sheath, Black (also available with FR PVC & HFFR).
- Rip cord to open the sheath.

Technical Characteristics

FIBRE COUNT	FIBRE PER TUBE	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
		Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
12-72	(12F/Tube)	10.0	77	2000	1000	10D	20D	-10℃ to +50℃	-40℃ to +70C
96	(12F/Tube)	11.4	105	4400	2400	10D	20D	-10℃ to +50℃	-40℃ to +70C
144	(12F/Tube)	14.0	155	4800	2800	10D	20D	-10℃ to +50℃	-40℃ to +70℃
192	(12F/Tube)	14.6	150	3500	1800	10D	20D	-10℃ to +50℃	-40℃ to +70℃
216	(12F/Tube)	14.6	150	3500	1800	10D	20D	-10℃ to +50℃	-40C to +70C
288	(12F/Tube)	16.5	200	4500	2400	10D	20D	-10℃ to +50℃	-40℃ to +70C
432	(24F/Tube)	16.8	205	5200	2600	10D	20D	-10C to +50℃	-40℃ to +70℃
576	(24F/Tube)	19.5	280	7500	4000	10D	20D	-10℃ to +50℃	-40℃ to +70℃
720	(24F/Tube)	22.5	345	7600	4000	10D	20D	-10℃ to +50℃	-40℃ to +70℃
864	(24F/Tube)	22.5	355	9000	4500	10D	20D	-10℃ to +50℃	-40℃ to +70℃

Fiber & Tube colour coding

Without ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Voilet	Pink	Aqua

With ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Voilet	Pink	Aqua

- More than 12 fiber we provide Black ring mark above the colored fiber.
- More than 12 Tube we provide Stripe above the colored tube.

Special Features

- Single Double & Triple layer S-Z stranded construction.
- Flexible buffer tubes provide easy fiber routing inside closure.
- Light in weight, hence easy to install.

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	20 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	5 Nm, 3 Impacts
Crush Resistance (N) [IEC 60794-1-21-E3]	2000 N (100 X 100 mm)
Torsion Resistance [IEC 60794-1-21-E7]	10 Cycle (± 180)°
Water Penetration [IEC 60794-1-22-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours

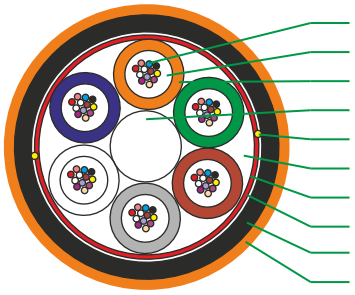
12F-288F DOUBLE SHEATH MULTI-TUBE UNARMOURED OPTICAL FIBER CABLE

Water blocked | Outdoor | Underground | Metro | RoHS compliant

Application

- Suitable for Duct Installation, pulled & blown

Typical Cross section of 48 Fiber



Cable Construction Details

- Up to 288 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- 6/8/12 fiber per tube combinations are available in 6/8/12 element construction
- Non metallic anti-buckling FRP rod as Central Strength Member (also available with Steel rod)
- Loose buffer tubes fully filled , S-Z Stranded
- Cable core fully filled with jelly (also available in dry core)
- Glass yarn can be used as peripheral strength member
- S-Z core wrapped with polyester tape / water swellable tape
- UV Stablized HDPE inner sheath, Black
- Insect & termite resistant PA-12 outer sheath
- Outer Sheath PA12 , Orange
- Rip Cord to open the sheath

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
UPTO 72F	11	88	2000	1200	10D	20D	-10 °C to +50C °	-40C to +70C
96F	12.5	120	4800	2800	10D	20D	-10 °C to +50C °	-40C to +70C
144F	14.8	170	5000	3000	10D	20D	-10 °C to +50C °	-40C to +70C
192F-216F	15.5	170	3600	1200	10D	20D	-10 °C to +50C °	-40C to +70C
288F	17.4	220	4800	2700	10D	20D	-10 °C to +50C °	-40C to +70C

Colour Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Special Features

- Single layer S-Z stranded construction
- Flexible buffer tubes provide easy fiber routing inside closure
- Light in weight, hence easy to install
- Insect & termite resistant

Drum Length

2000/ 3000/ 4000 meters ± 5%

Mechanical Characteristics

Repeated Bending [IEC 60794-1-21-E6]	30 Cycle, r= 20 X D, 5 Kg Load, D = Cable Diameter
Torsion Resistance [IEC 60794-1-21-E7]	10 Cycle (± 360)°5 Kg Weight, L= 2 Mtr
Crush Resistance [IEC 60794-1-21-E3A]	2500 N (100 X 100 mm) for 600 sec
Impact Resistance [IEC 60794-1-21-E4]	Height 500 mm, Weight = 5 Kg, 3 Nos
Kink Resistance [IEC 60794-1-21 E10]	10 x D, D = Cable D
Water Penetration [IEC 60794-1-22-F5 B]	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

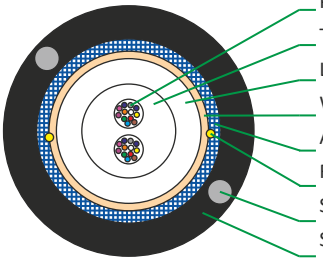
2F-24F SINGLE SHETH CENTRAL-TUBE ARMOURED OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- In areas where high mechanical load is required
- Suitable in area of rodent menace
- Direct burial & Inside duct - PE Outer Sheath
- Inside duct - FR PVC / HFFR / LSZH Outer Sheath

Typical Cross section of 24 Fiber



Cable Construction Details

- Up to 48 enhanced low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- Metallic anti-buckling steel rod as strength member. Embedded in outer sheath (also available with non metallic strength member FRP rod)
- Loose buffer tubes fully filled with Thixotropic Jelly and Fiber centrally place in the cable
- Water blocking tape wrapping
- Electrolyte chrome plated, corrugated steel tape armoured
- UV Stablized PE Outer sheath, black (also available with FR PVC & HFFR

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
12F	8.0	80	2000	1000	10D	20D	-10° to +50° C	-40° to +70° C
24F	8,5	85	2000	1000	10D	20D	-10° to +50° C	-40° to +70° C

Colour Coding - Fiber

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

* For Fiber count more than 12F, bundles in multiple of 12F will be formed with color identification binder (Blue, Orange, Green & Brown)

Special Features

- Lighter weight cable for faster and easier installation
- Robust construction.
- Corrugated steel tape acts as protection against rodents and mechanical protection

Drum Length

2000/4000meters ± 5%

Mechanical Characteristics

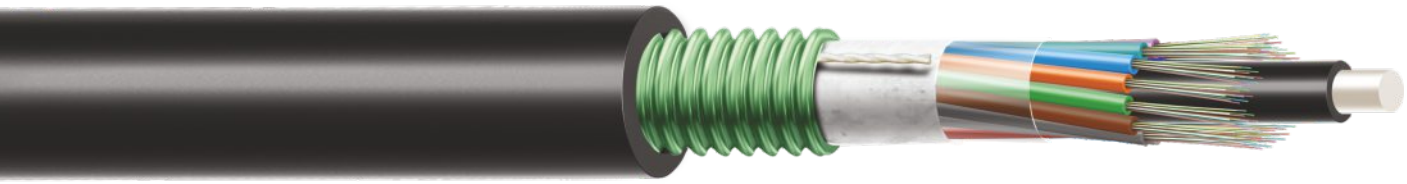
Repeated Bending (IEC 60794-1-2-E6)	30 Cycle, r= 20 X D, 5 Kg Load, D = Cable Diameter
Torsion Resistance (IEC 60794-1-2-E7)	10 Cycle (± 360°5 Kg Weight, L= 2 Mtr
Crush Resistance (IEC 60794-1-2-E3)	1000 N (100 X 100mm) for 600 sec
Impact Resistance (IEC 60794-1-2-E4)	5 Nm, 3 Nos
Kink Resistance (IEC 60794-1-2-E10)	10 x D, D = Cable Diameter
Water Penetration (IEC 60794-1-2-F5B)	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

12F-288F SINGLE SHEATH MULTI-TUBE ARMOURED OPTICAL FIBER CABLE

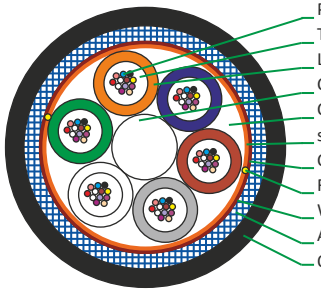
Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- In areas where high mechanical load is required
- Suitable in area of rodent menace
- Direct burial & Inside duct - PE Outer Sheath
- Inside duct - FR PVC / HFFR / LSZH Outer Sheath



Typical Cross section of 72 Fiber



Cable Construction Details

- Up to 288 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- 2/4/6/8/12/24/ fiber per tube combinations are available in 6/8/12/18/24 element construction
- Loose buffer tubes fully filled with Thixotropic Jelly and Fiber
- Non metallic anti-buckling FRP rod used as Central Strength Member. (also available with metallic strength member)
- Cable core is dry(also available in Jelly filled)
- S-Z core wrapped with polyester tape / water swellable tape)
- Electrolytic chrome plated & Corrugated steel tape armouring
- UV Stabilized HDPE outer sheath, black (also available with FR PVC & HFFR)

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
UPTO 72F	11.5	120	3000	1800	10D	20D	-10 °C to +50C °	-40℃ to +70C
96F	12.8	155	5600	3200	10D	20D	-10 °C to +50C °	-40℃ to +70℃
144F	15.5	220	6500	3800	10D	20D	-10 °C to +50C °	-40℃ to +70℃
192F-216F	16	220	4800	2600	10D	20D	-10 °C to +50C °	-40℃ to +70℃
288F	18	280	6000	3400	10D	20D	-10 °C to +50C °	-40℃ to +70℃

Colour Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Special Features

- Single layer S-Z stranded construction
- Corrugated steel tape acts as protection against rodents and mechanical damage.
- Robust construction
- Flexible buffer tubes provide easy fiber routing inside closure

Drum Length

2000/ 4000meters ± 5%

Mechanical Characteristics

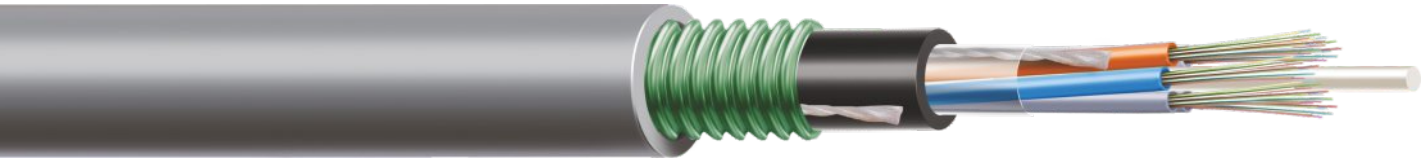
Repeated Bending (IEC 60794-1-2-E6)	30 Cycle, r= 20 X D, 5 Kg Load, D = Cable Diameter
Torsion Resistance (IEC 60794-1-2-E7)	10 Cycle (± 360)° 5 Kg Weight, L= 2 Mtr
Crush Resistance (IEC 60794-1-2-E3)	2000 N (100 X 100 mm) for 600 sec
Impact Resistance (IEC 60794-1-2-E4)	10 Nm, 3 Nos
Kink Resistance (IEC 60794-1-2-E10)	10 x D, D = Cable Diameter
Water Penetration (IEC 60794-1-2-F5B)	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

12F-288F DOUBLE SHEATH MULTI-TUBE ARMOURED OPTICAL FIBER CABLE

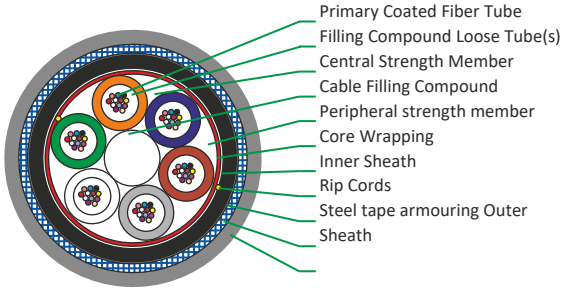
Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- In areas where high mechanical load is required
- Suitable in area of rodent menace
- Direct burial & Inside duct - PE Outer Sheath
- Inside duct - FR PVC / HFFR / LSZH Outer Sheath



Typical Cross section of 72 Fiber



Cable Construction Details

- Up to 288 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- 2/4/6/8/12/24/ fiber per tube combinations are available in 6/8/12/18/24 element construction
- Non metallic anti-buckling FRP rod as Central Strength Member (also available with metallic strength member)Loose buffer tubes fully filled with Thixotropic Jelly and Fiber
- Cable core is dry(also available in Jelly filled)
- S-Z core wrapped with polyester tape / water swellable tape
- Electrolytic chrome plated & Corrugated steel tape armouring
- UV Stabilized HDPE outer sheath, black (also available with FR PVC & HFFR)

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
UPTO 72F	13.5	160	3200	1800	10D	20D	-10 °C to +50C °	-40℃ to +70C
96F	15	200	6200	3600	10D	20D	-10 °C to +50C °	-40℃ to +70℃
144F	17.8	250	6200	3600	10D	20D	-10 °C to +50C °	-40℃ to +70℃
192F-216F	18.5	280	5200	2600	10D	20D	-10 °C to +50C °	-40℃ to +70℃
288F	20.5	345	6400	3600	10D	20D	-10 °C to +50C °	-40℃ to +70℃

Colour Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Special Features

- Single layer S-Z stranded construction
- Corrugated steel tape acts as protection against rodents and mechanical damage.
- Robust construction
- Flexible buffer tubes provide easy fiber routing inside closure

Drum Length

2000/ 4000meters ± 5%

Mechanical Characteristics

Repeated Bending (IEC 60794-1-2-E6)	30 Cycle, r= 20 X D, 10 Kg Load, D = Cable Diameter
Torsion Resistance (IEC 60794-1-2-E7)	10 Cycle (± 360)°10 Kg Weight, L= 2 Mtr
Crush Resistance (IEC 60794-1-2-E3)	4000 N (100 X 100 mm) for 600 sec
Impact Resistance (IEC 60794-1-2-E4)	10 Nm, 3 Nos
Kink Resistance (IEC 60794-1-2-E10)	10 x D, D = Cable Diameter
Water Penetration (IEC 60794-1-2-F5B)	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

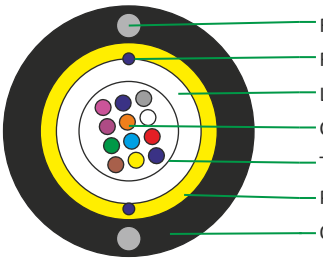
2F - 24F SINGLE SHEATH UNITUBE ALL DI-ELECTRIC SELF SUPPORTING AERIAL OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

Suitable for self-supporting aerial & duct installation.

Typical Cross section of 12 Fiber



Cable Construction Details

- Up to 24 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber).
- Loose buffer tubes fully filled with Thixotropic Jelly & Fiber.
- Aramid yarn used as peripheral strength member.
- UV Stabilized PE outer sheath, Black (also available with HFFR / FR PVC).
- 2 (Nom) FRP Embedded in outer sheath.
- Rip cord to open the sheath.

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
2	6.5	36	1000	450	15D	20D	-10 °C to +50C°	-40C to +70C
4	6.5	36	1000	450	15D	20D	-10 °C to +50C°	-40C to +70C
6	6.5	36	1000	450	15D	20D	-10 °C to +50C°	-40C to +70C
8	6.5	36	1000	450	15D	20D	-10 °C to +50C°	-40C to +70C
12	6.5	36	1000	450	15D	20D	-10 °C to +50C	-40C to +70C
24	7.0	40	1000	450	15D	20D	-10 °C to +50C	-40C to +70C

Fiber & Tube color coding

Without ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Voilet	Pink	Aqua

With ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Voilet	Pink	Aqua

*More than 12 fiber we provide black Ring mark above the coloured fiber.

Special Features

- Central Loose tube construction
- Offers exceptional strength and corrosion resistance for aerial application
- Flexible buffer tubes provide easy fiber routing inside closure

Drum Length

2000/ 4000meters ± 5%

Mechanical Characteristics

Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	20 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	3 Nm, 3 Impacts
Crush Resistance (N) [IEC 60794-1-21-E3]	1000 N (100 X 100 mm)
Torsion Resistance [IEC 60794-1-21-E7]	10 Cycle (± 180)°

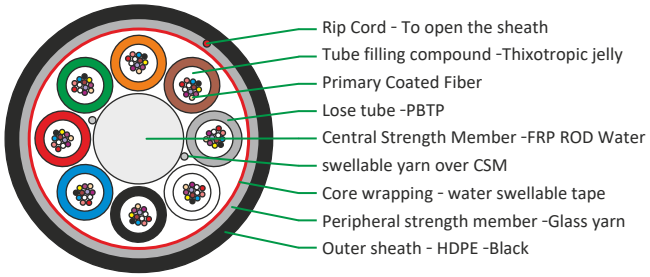
12F - 288F SINGLE SHEATH MULTI TUBE DI ELECTRIC RODENT PROTECTED FIBER OPTIC CABLE - GLASS YARN

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- Suitable for Duct Installation, pulled & blown

Typical Cross section of 96 Fiber



Cable Construction Details

- Up to 288 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber).
- 6/8/12 fiber per tube combinations are available in 5/6/8/12/18/24/36 element constructions.
- Non metallic anti-buckling FRP rod as Central Strength Member.
- Loose buffer tubes fully filled with Thixotropic Jelly & Fibers.
- Loose buffer tubes S-Z Stranded (Water Swellable Yarn over CSM).
- Cable core is Dry & wrapped with water swellable tape.
- Glass yarn used as peripheral strength member.
- UV Stabilized PE outer sheath, Black (also available with FR PVC & HFFR).
- Rip cord to open the sheath

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
12	10.5	85	3000	1800	10D	20D	-10 °C to +50C	-40C to +70C
24	10.5	85	3000	1800	10D	20D	-10 °C to +50C	-40C to +70C
36	10.5	85	3000	1800	10D	20D	-10 °C to +50C	-40C to +70C
48	10.5	85	3000	1800	10D	20D	-10 °C to +50C	-40C to +70C
72	10.5	85	3000	1800	10D	20D	-10 °C to +50C	-40C to +70C
96	11.8	115	5800	3400	10D	20D	-10 °C to +50C	-40C to +70C
144	14.5	165	6200	3600	10D	20D	-10 °C to +50C	-40C to +70C
192	15.0	165	4800	2600	10D	20D	-10 °C to +50C	-40C to +70C
216	15.0	165	4800	2600	10D	20D	-10 °C to +50C	-40C to +70C
288	17.0	215	5600	3200	10D	20D	-10 °C to +50C	-40C to +70C

Color Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

*More than 12 Tube we provide black stripe above the colored tube

Special Features

- Single Double & Triple layer S-Z stranded construction
- Flexible buffer tubes provide easy fiber routing inside closure
- Light in weight, hence easy to install

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	20 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	5 Nm, 3 Impacts
Crush Resistance (N) [IEC 60794-1-21-E3]	2000 N (100 X 100 mm)
Torsion Resistance [IEC 60794-1-21-E7]	10 Cycle (± 180)°
Water Penetration [IEC 60794-1-22-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours

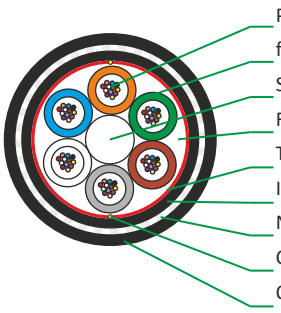
12F-288F DOUBLE SHEATH MULTI-TUBE DI-ELECTRIC RODENT PROTECTED OPTICAL FIBER CABLE

Water blocked | Outdoor | Underground | Metro | Rodent resistant | RoHS compliant

Applications

- Direct burial / Inside Duct
- In areas with particularly high mechanical loads
- In areas with rodents

Typical Cross Section of 72F



Cable Construction Details

- Upto 144 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- 6/8/12/24/ fiber per tube combinations are available in 6/8/12/18/24 element constructionn
- Non-metallic and anti-buckling element FRP rod used as Central Strength Member.
- Loose buffer tubes fully filled Thixotropic Jelly
- Loose buffer tubes S-Z Stranded
- Cable core is fully filled with Thixotropic Jelly (also available in dry core design)
- Cable core is wrapped with Polyester Tape / Water swellable tape
- UV Stabilized PE inner sheath, Black
- Glass Yarns used as dielectric armour
- UV Stabilized PE outer sheath, Black
- Rip to open the sheath

MULTI TUBE DESIGN

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
UPTO 72F	12.5	120	3600	2000	10D	20D	-10 °C to +50C°	-40C to +70C
96F	13.8	150	6500	3800	10D	20D	-10 °C to +50C°	-40C to +70C
144F	16.5	210	7000	4200	10D	20D	-10 °C to +50C°	-40C to +70C
192F-216F	17.0	210	5400	2800	10D	20D	-10 °C to +50C°	-40C to +70C
288F	19.0	270	6500	3800	10D	20D	-10 °C to +50C	-40C to +70C

Colour Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Special Features

- Single layer stranded construction
- Particularly robust cable
- Flexible buffer tubes provide easy fiber routing inside closure
- All dielectric armoured

Mechanical Characteristics

Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, r= 20 X D, 10 Kg Load, D = Cable D
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle (± 360)° 10 Kg Weight, L= 2 Mtr
Crush Resistance [IEC 60794-1-2-E3]	3000 N /(100 X 100 mm) for 60 sec
Impact Resistance [IEC 60794-1-2-E4]	Height 500 mm, Weight = 5 Kg, 3 Nos
Kink Resistance [IEC 60794-1-2-E10]	10 x D, D = Cable D
Water Penetration [IEC 60794-1-2-F5B]	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

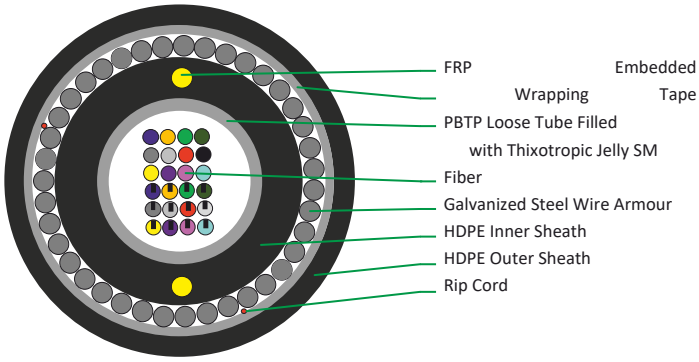
4F-24F DOUBLE SHEATH UNI-TUBE UNDERGROUND STEEL WIRE ARMOURED OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

- Suitable for Duct/direct buried Application

Typical Cross section of 24 Fiber



Cable Construction Details

- Non-metallic and anti-buckling element FRP rod used at inner sheath
- Loose buffer tubes fully filled
- HDPE Inner sheath, Black Colour
- Galvanized Steel Wire Armour over Inner Sheath
- UV Stabilized, HDPE Outer sheath, Black Colour

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
4F	12.0	210	2500	1500	15D	25D	-20℃ to +70℃	-20℃ to +70℃
6F	12.0	210	2500	1500	15D	25D	-20℃ to +70℃	-20℃ to +70℃
8F	12.0	210	2500	1500	15D	25D	-20℃ to +70℃	-20℃ to +70℃
12F	12.2	215	2500	1500	15D	25D	-20℃ to +70℃	-20℃ to +70℃
24F	12.5	220	2500	1500	15D	25D	-20℃ to +70℃	-20℃ to +70℃

Fiber & Tube Colour Coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

For Fiber Count 12F We provide the above colour code
For Higher Fiber count We provide contrast dot marking of above colour code

Special Features

- Galvanized Steel wire amour provided excellent Crush & Impact Resistance.
- Flexible buffer tubes provide easy fiber routing inside closure.
- The Metallic Armour enables post installation cable locating.

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

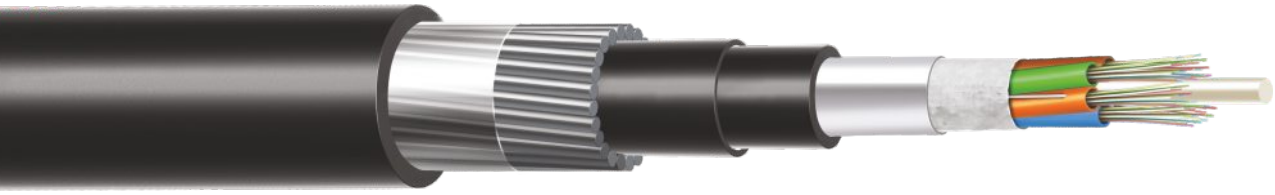
Kink Resistance (mm)[IEC 60794-1-2-E10]	15 x D, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	Height 0.5 meters, Weight = 5 Kg, 3 Nos
Crush Resistance (N) [IEC 60794-1-2-E3]	4000 N [100 X 100 mm] for 60 sec
Repeated Bending [IEC 60794-1-2-E6]	10 Cycle, r = 20 X D, 5 Kg Load, D = Cable Diameter
Water Penetration [IEC 60794-1-2-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours [On Inner Sheath]

12F-144F DOUBLE SHEATH MULTI-TUBE STEEL WIRE ARMOURED OPTICAL FIBER CABLE

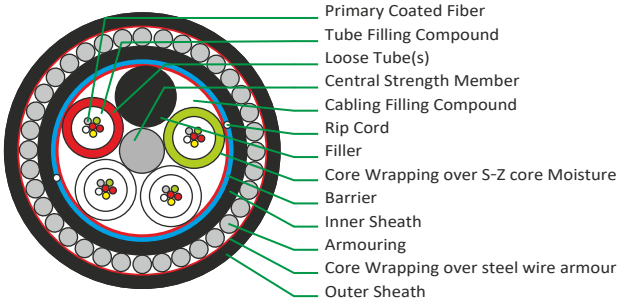
Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- In areas where high pulling force is required
- In areas where complex cable run is required
- Direct burial & Inside duct - PE Outer Sheath
- Inside duct - FR PVC / HFFR / LSZH Outer Sheath



Typical Cross section of 48 Fiber



Cable Construction Details

- Up to 144 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- Phosphate coated metallic anti-buckling steel rod as central strength member (also available with non metallic strength member, FRP rod)
- 2/4/6/8/12 fiber per tube combinations are available in 5/6/8/12 element constructions
- Loose buffer tubes fully filled S-Z Stranded
- Cable core fully filled with jelly
- PE coated Aluminium foil as moisture barrier
- UV Stablized PE inner sheath, black
- Galvanised Steel wire armour, wrapped with polyester tape
- UV stabilized HDPE outer sheath, black (also available with FR PVC & HFFR)

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
UPTO 60F	14.5	350	6000	3000	15D	20D	-10° to +50° C	-40° to +70° C
72F	15.0	375	6000	3000	15D	20D	-10° to +50° C	-40° to +70° C
96F	17.0	425	6000	3000	15D	20D	-10° to +50° C	-40° to +70° C
144F	18.7	520	10000	5000	15D	20D	-10° to +50° C	-40°0 to +70° C

Colour Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Special Features

- Single layer S-Z stranded construction.
- Phosphate coating over steel wire CSM prevent Hydrogen generation.
- Aluminium Foils provides excellent protection against Moisture.
- Rugged & robust design

Drum Length

2000 meters ± 5%

Mechanical Characteristics

Repeated Bending (IEC 60794-1-2-E6)	30 Cycle, 20 X D, 10 Kg Load, D = Cable D
Crush Resistance (IEC 60794-1-2-E3)	6000 N (100 X 100 mm) for 600 sec
Impact Resistance (IEC 60794-1-2-E4)	Height 500 mm, Weight = 5 Kg, 10 Nos at Different Place
Kink Resistance (IEC 60794-1-2-E10)	20 x D, D = Cable D
Water Penetration (IEC 60794-1-2-F5)	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

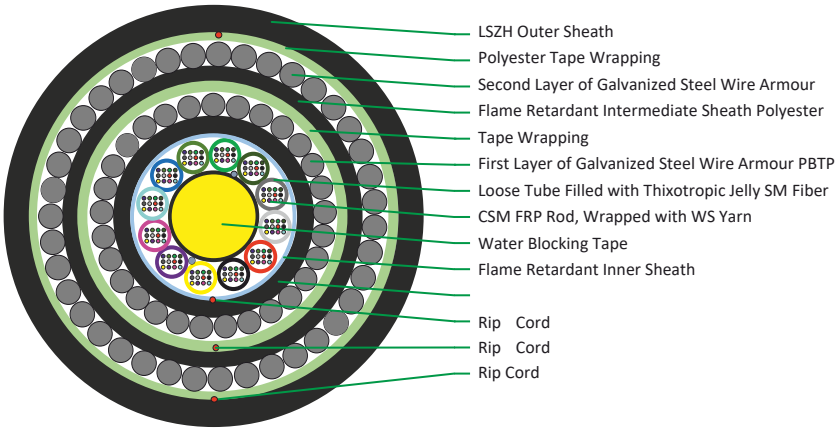
12F - 144F TRIPLE SHEATH MULTI-TUBE SINGLE MODE WIRE ARMOURED FIBER OPTIC CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

- Suitable for Duct/Direct Buried Application

Typical Cross section of 144 Fiber



Cable Construction Details

- 1.Non-metallic and anti-buckling element FRP rod used as Central Strength Member
- Loose buffer tubes fully filled
- Loose buffer tubes S-Z Stranded
- S-Z core is dry type filled with water swellable yarn & tape
- HDPE Black Inner sheath, black colour
- Galvanized Steel Wire Armour over Inner Sheath
- HDPE Black Intermediate sheath, black colour
- Galvanized Steel Wire Armour over Intermediate Sheath
- HDPE Black Colour Outer sheath UV Stabilized

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
12	18.5	625	2000	3000	25D	40D	-10° C to +70° C	-20° C to +70° C
24	18.5	625	2000	3000	25D	40D	-10° C to +70° C	-20° C to +70° C
36	18.5	625	2000	3000	25D	40D	-10° C to +70° C	-20° C to +70° C
48	18.5	625	2000	3000	25D	40D	-10° C to +70° C	-20° C to +70° C
72	18.5	625	2000	3000	25D	40D	-10° C to +70° C	-20° C to +70° C
96	20.0	765	2000	3000	25D	40D	-10° C to +70° C	-20° C to +70° C
144	23.0	980	2000	3000	25D	40D	-20° C to +70° C	-20° C to +70° C

Fiber & Tube Colour Coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

For Fiber Count 12F We provide the above colour code
For Higher Fiber count We provide contrast dot marking of above colour code

Special Features

- Single layer stranded construction
- Double Layer of Galvanized Steel wire armour provided excellent Crush & Impact Resistance
- Flexible buffer tubes provide easy fiber routing inside closure

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

Kink Resistance (mm) [IEC 60794-1-2-E10]	25 x D, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	Height 0.5 meters, Weight = 5 Kg, 3 Nos
Crush Resistance (N) [IEC 60794-1-2-E3]	4000 N [100 X 100 mm] for 60 sec
Water Penetration [IEC 60794-1-2-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours [On Inner Sheath]

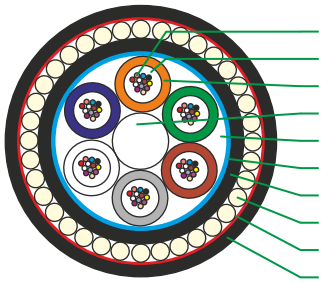
12F-144F DOUBLE SHEATH MULTI-TUBE FRP ROD ARMOURED OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- In areas where high pulling force is required
- In areas where complex cable run is required
- Direct burial & Inside duct - PE Outer Sheath
- Inside duct - FR PVC / HFFR / LSZH Outer Sheath

Typical Cross section of 72 Fiber



Cable Construction Details

- Up to 144 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- 6/8/12/24/ fiber per tube combinations are available in 6/8/12/18/24 element construction
- Non-metallic anti-buckling FRP rod as Central Strength Member.
- Loose buffer tubes fully filled, S-Z Stranded
- Cable core is fully filled with Thixotropic Jelly (also available in dry core design)
- Cable core is wrapped with Polyester Tape and water swellable tape
- UV Stablized PE inner sheath, black
- FRP rods for armouring
- UV stabilized PE outer sheath, black (also available with FR PVC & HFFR)

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
UPTO 48F	14.0	180	5000	2500	15D	20D	-10° to +50° C	-40° to +70° C
72F	15.0	210	5000	2500	15D	20D	-10° to +50° C	-40° to +70° C
96F	16.5	240	5000	2500	15D	20D	-10° to +50° C	-40° to +70° C
144F	19.5	340	5000	2500	15D	20D	-10° to +50° C	-40° to +70° C

Colour Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Special Features

- Single layer S-Z stranded construction.
- Completely dielectric construction
- Rugged & robust design

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

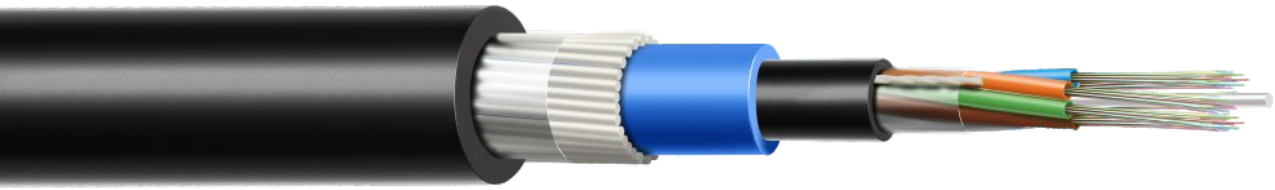
Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, 20 X D, 10 Kg Load D = Cable D
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle (± 360°) 5 Kg Weight, L= 2 Mtr
Crush Resistance [IEC 60794-1-2-E3]	3000 N (100 X 100 mm) for 600 sec
Impact Resistance [IEC 60794-1-2-E4]	Height 500 mm, Weight = 5 Kg, 10 Nos at Different Place
Kink Resistance [IEC 60794-1-2-E10]	20 x D, D = Cable D
Water Penetration [IEC 60794-1-2-F5]	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

12F -288F TRIPLE SHEATH MULTI-TUBE SINGLE MODE FRP ARMOUERD FIBER OPTIC CABLE

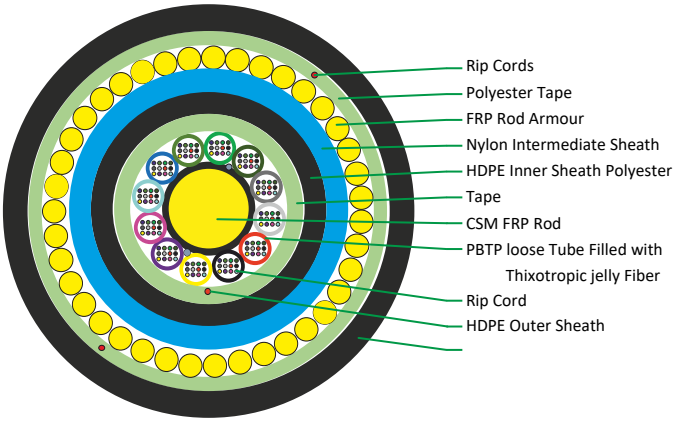
Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

- Suitable for Duct/Direct Buried Application
- The universal design is suited for use in most network arenas, including backbone, access and distribution
- Installation within Duct using blown on pulling techniques



Typical Cross section of 144 Fiber



Cable Construction Details

- Non-metallic and anti-buckling element FRP rod used as Central Strength Member
- Loose buffer tubes fully filled
- Loose buffer tubes S-Z Stranded
- S-Z core is filled with Thixotropic Jelly
- UV Stabilized PE Inner Sheath, Black Colour
- Insect Resistance Intermediate Sheath of Nylon Jacket over Inner Sheath, Blue Colour
- FRP Rod Armouring
- UV Stabilized, HDPE Outer Sheath, Black Colour

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
12	15.0	180	4000	2000	10D	20D	-20° C to +70° C	-20° C to +70° C
24	15.0	180	4000	2000	10D	20D	-20° C to +70° C	-20° C to +70° C
36	15.0	180	4000	2000	10D	20D	-20° C to +70° C	-20° C to +70° C
48	15.0	180	4000	2000	10D	20D	-20° C to +70° C	-20° C to +70° C
72	15.0	180	4000	2000	10D	20D	-20° C to +70° C	-20° C to +70° C
96	16.5	225	4000	2000	10D	20D	-20° C to +70° C	-20° C to +70° C
144	19.0	300	4000	2000	10D	20D	-20° C to +70° C	-20° C to +70° C
288(12f per tube)	22.0	400	4000	2000	10D	20D	-20° C to +70° C	-20° C to +70° C
288(24f per tube)	21.0	375	4000	2000	10D	20D	-20° C to +70° C	-20° C to +70° C

Fiber colour coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

For Fiber Count 12F We provide the above color code
For Higher Fiber count We provide contrast dot marking of above color code

Special Features

- Single/Double layer stranded construction
- Flexible buffer tubes provide easy fiber routing inside closure
- FRP Armour provides better Crush Resistance
- Requires no grounding or bonding due to all-dielectric construction

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

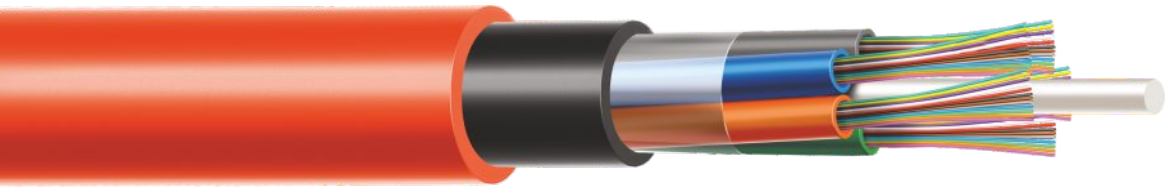
Kink Resistance (mm)[IEC 60794-1-2-E10]	10 x D, D = Cable Diameter
Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, r = 20 X D, 5 Kg Load, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	2 J, 3 Impacts
Crush Resistance (N) [IEC 60794-1-2-E3]	Short Term: 4000 N [100 X 100 mm] for 60 sec & Long Term: 2000 N [100 X 100 mm] for 120 sec
Water Penetration [IEC 60794-1-2-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours [On Inner Sheath]

MULTI-TUBE RIBBON TYPE CABLE (48-576 F)

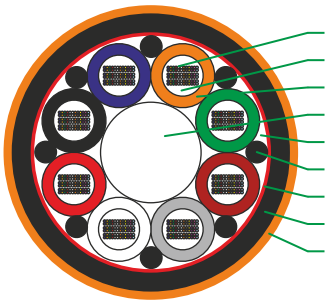
Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

- Suitable for Duct Installation, pulled & blown



Typical Cross section of 288 Fiber



Cable Construction Details

- Up to 576 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D in 4/8/12 Fiber Ribbon (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- Non metallic and anti-buckling FRP rod as Central Strength Member
- Loose buffer tubes fully filled, S-Z Stranded
- Cable core is fully filled with Thixotropic Jelly (also available in dry core design)
- S-Z core wrapped with polyester tape/water swellable tape
- UV Stablized PE Inner sheath, Black
- Insect & termite resistance PA-12 outer sheath, Orange

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
UPTO 96F	19.0	280	3000	1500	15D	20D	-10° to +50° C	-40° to +70° C
144F	20.5	340	3000	1500	15D	20D	-10° to +50° C	-40° to +70° C
288F	24.0	525	3000	1500	15D	20D	-10° to +50° C	-40° to +70° C
576F	30.0	740	3000	1500	15D	20D	-10° to +50° C	-40° to +70° C

Color Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

*Identification of ribbon in loose tube - 1 ribbon 1, 2 ribbon 2, 3 ribbon 3.....

Special Features

- Single layer S-Z stranded construction
- Flexible buffer tubes provide easy fiber routing inside closure
- Insect & Termite resistant

Drum Length

2000/ 3000/ 4000 meters ± 5%

Mechanical Characteristics

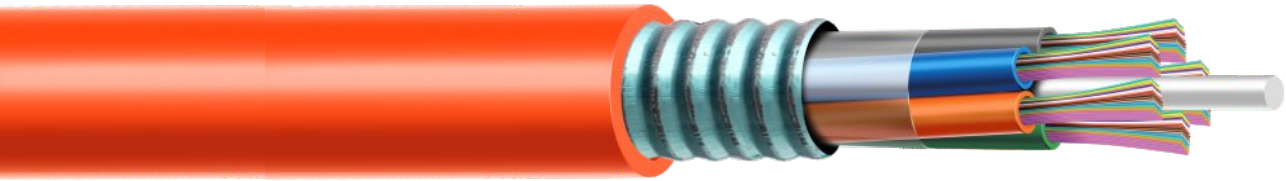
Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, r= 20 X D, 10 Kg Load, D = Cable D
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle (± 360°10 Kg Weight, L= 2 Mtr
Crush Resistance [IEC 60794-1-2-E3]	2500 N (100 X 100 mm) for 600 sec
Impact Resistance [IEC 60794-1-2-E4]	Height 500 mm, Weight = 5 Kg, 3 Nos
Kink Resistance [IEC 60794-1-2-E10]	10 x D, D = Cable D
Water Penetration [IEC 60794-1-2-F5B]	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

144F - 864F SINGLE SHEATH MULTI-TUBE SINGLE MODE RIBBON ECCS TAPE FIBER OPTIC CABLE

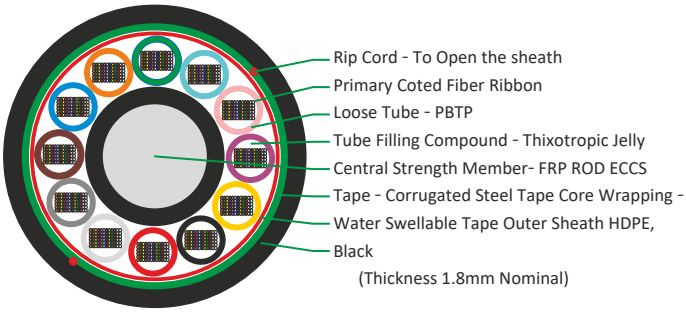
Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

Suitable for Duct Installation



Typical Cross section of 864 Fiber



Cable Construction Details

- Enhance low water peak single mode fibers in full compliance with ITU-T-G657A2
- Non-metallic and anti-buckling element FRP rod used as Central Strength Member
- Loose buffer tubes fully filled with Thixotropic Jelly & Ribbon Fibers
- Loose buffer tubes S-Z Stranded
- S-Z core is Dry & Wrapping with Water Swellable tape
- ECCS Tape Armouring.
- UV Stabilized, HDPE Outer sheath, black

Technical Characteristics

FIBER COUNT	No of Fiber Per Ribbon	No of Ribbon Per Tube	No of Loose Tube	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
						Installation	Operation	Installation	Operation	Installation	Operation
288F	12	6	4	22.5	400	1200	2400	15D	25D	-5° C to +45° C	-20° C to +70° C
360F	12	6	5	22.5	400	1200	2400	15D	25D	-5° C to +45° C	-20° C to +70° C
432F	12	6	6	24.5	500	1500	3100	15D	25D	-5° C to +45° C	-20° C to +70° C
720F	12	10	6	28.0	600	1800	3500	15D	25D	-5° C to +45° C	-20° C to +70° C
864F	12	12	6	28.0	600	1600	3100	15D	25D	-5° C to +45° C	-20° C to +70° C

Fiber & Tube colour coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

For Fiber Count 12F We provide the above colour code

Ribbon Coding

Numeric Number Marking at every ≥50 mm on Each Ribbon

Special Features

Single layer stranded construction.

Offers exceptional strength for underground application

Flexible buffer tubes provide easy fiber routing inside closure

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

Crush Resistance (N) [IEC 60794-1-2-E3]	2000 N [100 X 100 mm] for 1 minute, Number of Test: 3 at 500 mm apart
Impact Resistance (Nm) [IEC 60794-1-2-E4]	Height 500 mm, Weight = 5.0 Kg, 3 Nos
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle (± 180)°
Water Penetration [IEC 60794-1-22-F5 B/C]	1 Mtr water height 3 Mtr cable Sample, 24 Hrs (Applicable on inner Sheath)

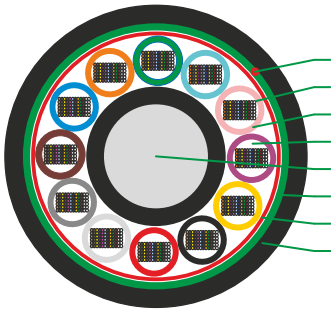
144F - 1728F SINGLE SHEATH MULTI-TUBE SINGLE MODE RIBBON FIBER OPTIC CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

Suitable for Duct Installation

Typical Cross section of 864 Fiber



Cable Construction Details

- Enhance low water peak single mode fibers in full compliance with ITU-T-G657A2
- Non-metallic and anti-buckling element FRP rod used as Central Strength Member
- Loose buffer tubes fully filled with Thixotropic Jelly & Ribbon Fibers
- Loose buffer tubes S-Z Stranded
- S-Z core is Dry & Wrapping with Water Swellable tape
- Peripheral Strength Member - Glass Yarn if required to meet Tensile Strength.
- UV Stabilized, HDPE Outer sheath, black

Technical Characteristics

FIBER COUNT	No of Fiber Per Ribbon	No of Ribbon Per Tube	No of Loose Tube	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
						Installation	Operation	Installation	Operation	Installation	Operation
144F	12	6	2	21.2	320	2200	1100	10D	20D	-5° C to +45° C	-20° C to +70° C
288F	12	6	4	21.2	320	2200	1100	10D	20D	-5° C to +45° C	-20° C to +70° C
432F	12	6	6	23.5	400	2800	1400	10D	20D	-5° C to +45° C	-20° C to +70° C
720F	12	10	6	27.0	500	3000	1400	10D	20D	-5° C to +45° C	-20° C to +70° C
1152F	12	12	8	30.0	630	3200	1400	10D	20D	-5° C to +45° C	-20° C to +70° C
1728F	12	12	12	39.5	1140	4000	1800	10D	20D	-5° C to +45° C	-20° C to +70° C

Fiber & Tube color coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

For Fiber Count 12F We provide the above color code

Ribbon Coding

Numeric Number Marking at every 50 mm on Each Ribbon

Special Features

Single layer stranded construction.

Offers exceptional strength for underground application

Flexible buffer tubes provide easy fiber routing inside closure

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

Kink Resistance (mm) [IEC 60794-1-2-E10]	10 x D, D = Cable Diameter
Crush Resistance (N) [IEC 60794-1-2-E3]	2000 N [100 X 100 mm] for 1 minute, Number of Test: 3 at 500 mm apart
Impact Resistance (Nm) [IEC 60794-1-2-E4]	Height 500 mm, Weight = 5.0 Kg, 3 Nos
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle (± 180)°
Water Penetration [IEC 60794-1-22-F5 B/C]	1 Mtr water height 3 mtr cable Sample, 24 Hrs (Applicable on inner Sheath)

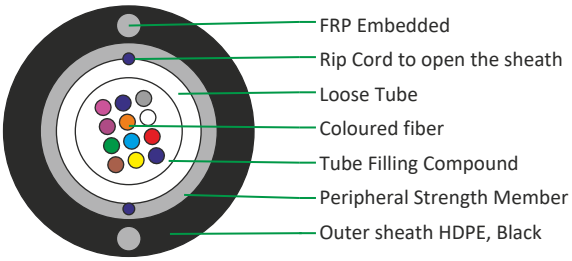
2F- 24F CENTRAL TUBE GLASS YARN ARMOURED FIBER OPTIC CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

Suitable for duct installation

Typical Cross section of 12 Fiber



Cable Construction Details

- Up to 24 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber).
- Loose buffer tubes fully filled with Thixotropic Jelly & Fibers.
- Glass yarn used as peripheral strength member.
- UV Stabilized PE outer sheath, Black (also available with HFFR / FR PVC).
- 2 (Nom) FRP Embedded in outer sheath.
- Rip cord to open the sheath.

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
2	6.5	36	1000	450	20D	10D	-10° C to +50° C	-40° C to +70° C
4	6.5	36	1000	450	20D	10D	-10° C to +50° C	-40° C to +70° C
6	6.5	36	1000	450	20D	10D	-10° C to +50° C	-40° C to +70° C
8	6.5	36	1000	450	20D	10D	-10° C to +50° C	-40° C to +70° C
12	6.5	36	1000	450	20D	10D	-10° C to +50° C	-40° C to +70° C
24	7.0	40	1000	450	20D	10D	-10° C to +50° C	-40° C to +70° C

Fiber & Tube colour coding

Without ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Voilet	Pink	Aqua

With ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Voilet	Pink	Aqua

*More than 12 fiber we provide black Ring mark above the colored fiber.

Special Features

- Central Loose tube construction.
- Lighter weight cable for faster and easier installation.
- Flexible buffer tubes provide easy fiber routing inside closure.

Drum Length

2000/ 4000meters ± 5%

Mechanical Characteristics

Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	20 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	3 Nm, 3 Impacts
Crush Resistance (N) [IEC 60794-1-21-E3]	1000 N (100 X 100 mm)
Torsion Resistance [IEC 60794-1-21-E7]	10 Cycle (± 180)°

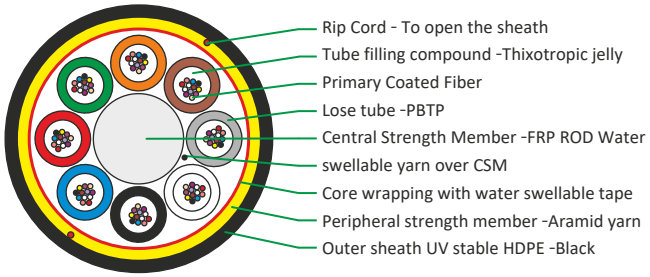
12F -288F SINGLE SHEATH MULTI TUBE ALL DI-ELECTRIC SELF SUPPORTING OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- Suitable for self supporting aerial installation.
- Suitable for span length of 60 mtrs (also available for other span length)

Typical Cross section of 96 Fiber



Cable Construction Details

- Up to 288 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber).
- 6/8/12 fiber per tube combinations are available in 6/8/12/18/24 element construction.
- Non metallic anti-buckling FRP rod as Central Strength Member.
- Loose buffer tubes fully filled with Thixotropic Jelly & Fibers.
- Loose buffer tubes S-Z Stranded (Water Swellable Yarn over CSM).
- Cable core is Dry & wrapped with water swellable tape.
- Aramid yarn used as peripheral strength member.
- UV Stabilized PE outer sheath, Black (also available with HFFR / FR PVC).
- Rip cord to open the sheath.

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
12	10.5	80	3500	2000	20D	10D	-10° C to +50° C	-40° C to +70° C
24	10.5	80	3500	2000	20D	10D	-10° C to +50° C	-40° C to +70° C
36	10.5	80	3500	2000	20D	10D	-10° C to +50° C	-40° C to +70° C
48	10.5	80	3500	2000	20D	10D	-10° C to +50° C	-40° C to +70° C
72	10.5	80	3500	2000	20D	10D	-10° C to +50° C	-40° C to +70° C
96	11.8	110	6500	3500	20D	10D	-10° C to +50° C	-40° C to +70° C
144	14.5	160	6500	3500	20D	10D	-10° C to +50° C	-40° C to +70° C
192	15.0	160	5000	2500	20D	10D	-10° C to +50° C	-40° C to +70° C
216	15.0	160	5000	2500	20D	10D	-10° C to +50° C	-40° C to +70° C
288	17.0	205	6500	3500	20D	10D	-10° C to +50° C	-40° C to +70° C

Color Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

*More than 12 Tube we provide black stripe above the colored tube

Special Features

- Single & Double layer S-Z stranded construction.
- Offers exceptional strength and corrosion resistance for aerial application.
- Flexible buffer tubes provide easy fiber routing inside closure.

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	20 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	5 Nm, 3 Impacts
Crush Resistance (N) [IEC 60794-1-21-E3]	2000 N (100 X 100 mm)
Torsion Resistance [IEC 60794-1-21-E7]	10 Cycle (± 180)°
Water Penetration [IEC 60794-1-22-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours

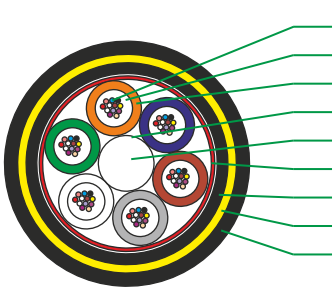
12F-288F DOUBLE SHEATH MULTI-TUBE ALL DI-ELECTRIC SELF SUPPORTING OPTICAL FIBER CABLE

Water blocked | Aerial | Outdoor | Shotgun resistant | Track resistant (25 kV) | RoHS compliant

Applications

- Suitable for self supporting aerial installation with rigorous load conditions, including heavy wind and ice
- Suitable for span length of 100 mtrs (also available for other span length)

Typical Cross section of 72 Fiber



Cable Construction Details

- Up to 288 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- Non metallic anti-buckling FRP rod as Central Strength Member
- Loose buffer tubes fully filled, S-Z Stranded
- Cable core fully filled (also available in dry core design)
- Cable core is wrapped with Polyester Tape/water swellable tape
- UV Stablized PE inner sheath, Black
- High modulus, Aramid yarn peripheral strength member
- UV Stablized PE Outer sheath, Orange

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
UPTO 48F	12.5	125	5000	2000	15D	20D	-10° to +50° C	-40° to +70° C
UPTO 72F	13.5	145	5000	2000	15D	20D	-10° to +50° C	-40° to +70° C
96F	15.0	180	5000	2000	15D	20D	-10° to +50° C	-40° to +70° C
144F	18.0	250	5000	2000	15D	20D	-10° to +50° C	-40° to +70° C

Color Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Special Features

- Single layer S-Z stranded construction
- Offers exceptional strength and corrosion resistance for aerial application
- Flexible buffer tubes provide easy fiber routing inside closure

Drum Length

2000/ 3000/ 4000 meters ± 5%

Mechanical Characteristics

Repeated Bending (IEC 60794-1-2-E6)	30 Cycle, 20 X D, 5 Kg Load, D = Cable D
Torsion Resistance (IEC 60794-1-2-E7)	10 Cycle (± 180)°5 Kg Weight, L= 2 Mtr
Crush Resistance (IEC 60794-1-2-E3)	3000 N (100 X 100 mm) for 600 sec
Impact Resistance (IEC 60794-1-2-E4)	Height 500 mm, Weight = 5 Kg, 3 Nos
Kink Resistance (IEC 60794-1-2-E10)	20 x D, D = Cable D
Water Penetration (IEC 60794-1-2-F5)	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

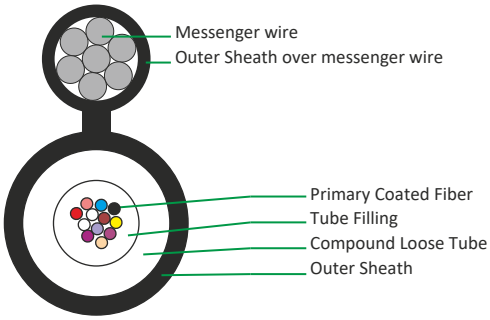
2F-24F SINGLE-TUBE FIGURE-8 TYPE AERIAL OPTICAL FIBER CABLE

Water blocked | Aerial | Outdoor | RoHS compliant

Applications

- Lashed aerial installation with rigorous load conditions, including heavy wind and ice
- Suitable for span length of 100 mtrs

Typical Cross section of 12 Fiber



Cable Construction Details

- Upto 24F enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- Loose buffer tubes fully filled
- High tensile, galvanised, stranded steel wire used as integrated messenger wire
- UV Stablized PE outer sheath, black

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
UPTO 12F	5.5 X 14.5	90	4500	2500	15D	20D	-10° to +50° C	-40° to +70° C
16/24F	6.0 X 15.0	90	4500	2500	15D	20D	-10° to +50° C	-40° to +70° C

Colour Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

* We provide Black ring mark over the fiber in case of more than 12 fibers

Special Features

- Central Loose tube construction
- Offers exceptional strength and corrosion resistance for aerial application
- Integrated High tensile messenger for superior strength and corrosion resistance.

Drum Length

2000/ 3000/ 4000 meters ± 5%

Mechanical Characteristics

Repeated Bending (IEC 60794-1-2-E6)	30 Cycle, 20 X D, 10 Kg Load, D = Cable Diameter
Torsion Resistance (IEC 60794-1-2-E7)	10 Cycle (± 180°) 5 Kg Weight, L= 2 Mtr
Crush Resistance (IEC 60794-1-2-E3)	1000 N (100 X 100mm) for 60 sec
Impact Resistance (IEC 60794-1-2-E4)	5 Kg, 3 Nos
Kink Resistance (IEC 60794-1-2-E10)	20 x D, D = Cable Diameter
Water Penetration (IEC 60794-1-2-F5)	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

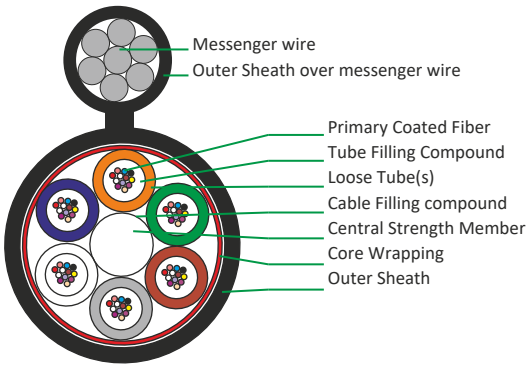
2F-288F MULTI-TUBE FIGURE-8 TYPE AERIAL OPTICAL FIBER CABLE

Water blocked | Aerial | Outdoor | RoHS compliant

Applications

- Lashed aerial installation with rigorous load conditions, including heavy wind and ice
- Suitable for span length of 100 mtrs

Typical Cross section of 72 Fiber



Cable Construction Details

- Upto 288 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- 2/4/6/8/12 fiber per tube combinations are available in 6/8/12 element construction
- Non-metallic anti-buckling FRP rod as Central Strength Member.
- Loose buffer tubes fully filled, S-Z Stranded
- Cable core fully filled (also available in dry core)
- S-Z core wrapped with polyester tape / water swelleble tape
- UV Stablized PE outer sheath, black
- High tensile, galvanised, stranded steel wire used as integrated messenger wire

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
UPTO 72F	10.5 X 19.5	155	8000	5000	10D	20D	-10° C to +50° C	-40° C to +70° C
96F	11.80 X 21.0	180	9600	6000	10D	20D	-10° C to +50° C	-40° C to +70° C
144F	14.5 X 23.5	230	10000	6500	10D	20D	-10° C to +50° C	-40° C to +70° C
192F–216F	15.0 X 24.0	230	8000	5000	10D	20D	-10° C to +50° C	-40° C to +70° C
288F	17.0 X 26.0	275	9500	6000	10D	20D	-10° C to +50° C	-40° C to +70° C

Color Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Special Features

- Single layer S-Z stranded construction
- Offers exceptional strength and corrosion resistance for aerial application
- Integrated High tensile messenger for superior strength and corrosion resistance.
- Flexible buffer tubes provide easy fiber routing inside closure

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

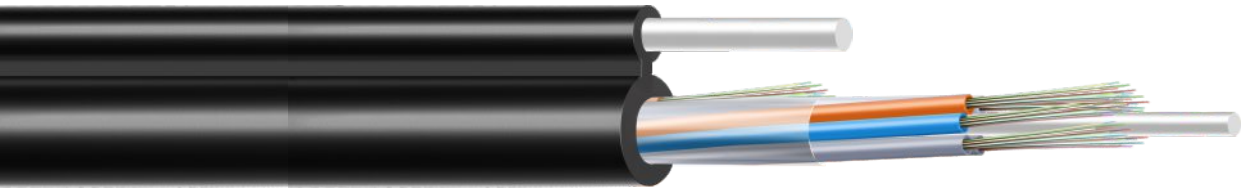
Repeated Bending (IEC 60794-1-2-E6)	30 Cycle, 20 X D, 5 Kg Load, D = Cable Diameter
Torsion Resistance (IEC 60794-1-2-E7)	10 Cycle (± 180)°5 Kg Weight, L= 2 Mtr
Crush Resistance (IEC 60794-1-2-E3)	3000 N (100 X 100 mm) for 600 sec
Impact Resistance (IEC 60794-1-2-E4)	10 Nm, 3 Nos Height 500 mm, Weight =
Kink Resistance (IEC 60794-1-2-E10)	10 x D, D = Cable Diameter
Water Penetration (IEC 60794-1-2-F5)	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours

12F - 144F ALL DIELECTRIC FIG-8 AERIAL OPTICAL FIBER CABLE

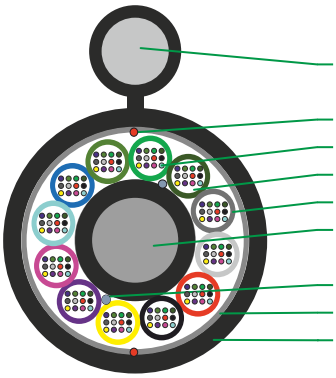
Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

- Lashed aerial installation with rigorous load conditions.



Typical Cross section of 144 Fiber



Cable Construction Details

- Up to 144 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G655 / G656 / G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber).
- 6/8/12 fiber per tube combinations are available in 6/8/12 element construction
- Non metallic anti-buckling FRP rod as Central Strength Member.
- Loose buffer tubes fully filled with Thixotropic Jelly & Fibers.
- Loose buffer tubes S-Z Stranded (Water Swellable Yarn over CSM).
- Cable core is Dry & wrapped with water swellable tape.
- UV Stabilized PE outer sheath, Black (also available with HFFR / FR PVC).
- Non-metallic and anti-buckling element FRO rod used as Messenger.
- Rip cord to open the sheath

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
12	10.0 X 19.0	115	4000	2200	10D	20D	-10° C to +50° C	-40° C to +70° C
24	10.0 X 19.0	115	4000	2200	10D	20D	-10° C to +50° C	-40° C to +70° C
36	10.0 X 19.0	115	4000	2200	10D	20D	-10° C to +50° C	-40° C to +70° C
48	10.0 X 19.0	115	4000	2200	10D	20D	-10° C to +50° C	-40° C to +70° C
72	10.0 X 19.0	115	4000	2200	10D	20D	-10° C to +50° C	-40° C to +70° C
96	11.5 X 20.5	145	6000	3500	10D	20D	-10° C to +50° C	-40° C to +70° C
144	14.0 X 23.0	195	6500	3800	10D	20D	-10° C to +50° C	-40° C to +70° C

Fiber & Tube Colour Coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

For Fiber Count 12F We provide the above colour code

Special Features

- Single layer S-Z stranded construction
- Offers exceptional strength and corrosion resistance for aerial applicatioCable construction
- Flexible buffer tubes provide easy fiber routing inside closure

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	20 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	5 Nm, 3 Impacts
Crush Resistance (N) [IEC 60794-1-21-E3]	1000 N (100 X 100 mm)
Torsion Resistance [IEC 60794-1-21-E7]	10 Cycle (± 180)°
Water Penetration [IEC 60794-1-22-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours

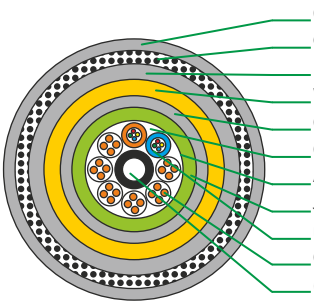
HYBRID (OPTICAL & COPPER)

Water blocked | Outdoor | Aerial | Metro | RoHS compliant

Applications

- Suitable for Under Ground Armoured Cable Upto 24F
- Axle Counting
- Signaling

Typical Cross section of Hybrid Cable



Cable Construction Details

Central Strength Member	Upcoated Fiber Reinforced Plastic-FRP (Non metallic)
Loose tube	2 No. PBT Loose tube filled with Thixotropic Jelly
No. of Quads	6 Quads with Identification binders
Core wrapping Moisture Barrier	Polyester Tape applied helically Aluminium Foil
Inner Sheath	PE Inner Sheath
Screening Tape	Aluminium wire screening Barrium Chromate Tape
Intermediate Sheath	PE Intermediate Sheath Double
Armouring	Steel tape armouring PE Outer
Outer Sheath	Sheath

Color Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Special Features

- Suitable for underground installation on pathways or roads
- Rodent & Termite proof.
- Robust under all conditions of operation, adjustment, replacement, storage and transport.
- Suitable for lightning prone areas.
- Better tensile strength.

Drum Length

1000 meters ± 5%

Mechanical Characteristics

Tensile strength Cable	: 5000 N
Bend Test Repeated	: 20D
Bending test Torsion	: 5 kg, 30 Cycles
Test	: 400 N
Crush Resistance Impact	: 4000 N, 600 Sec
Test	: 50 N, 10 Impact
Kink Test	: 20 D
Operating Temp. Water	: -20°C to +70°C
Penetration Test	: 3mtrs sample, 1mtr Height

Physical Characteristics

Cable Outer Diameter	: 30.0 + 4.0 mm
Nominal Cable Weight	: 1500 Kg/KM

Color Coding for Quad :

No1 - White, Orange, Red , Green No2 - White, Blue, Red , Green No3 - White, Brown, Red , Green No4 - White, Green, Red , Green No5 - White, Yellow, Red , Green No6 - White, Black, Red , Green

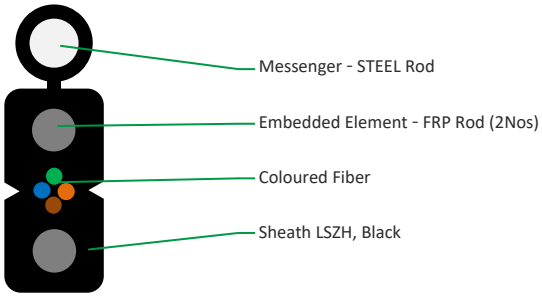
1F - 4F FRP FIG 8 EMBEDDED WITH MESSENGER WIRE AERIAL DROP OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Application

Suitable for Aerial drop application

Typical Cross section



Cable Construction Details

- 1.Up to 4 enhance low water peak single mode fibers in full compliance with ITU-T-G.652D (also available with G.657A1 & G.657A2)
- Outer sheath LSZH, Black
- FRP Embedded in outer sheath as strength member.
- Steel wire as integrated messenger wire.

Technical Characteristics

FIBER COUNT	DIAMENTION (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
1	2.0 X 5.0	20.0	850	450	10D	20D	-10° C to +50° C	-40° C to +70° C
2	2.0 X 5.0	20.0	850	450	10D	20D	-10° C to +50° C	-40° C to +70° C
4	2.0 X 5.0	20.0	850	450	10D	20D	-10° C to +50° C	-40° C to +70° C

Fiber colour coding

Without ring mark

Blue | Orange | Green | Brown

Special Features

- Small size and Diamention for easy to strip.
- Easy access to the fibers.
- Quick cable entry & easy to peel.
- Low insertion and back reflection loss.
- Good durability.
- High temprature stability.
- Clean, gel free, Dry design

Drum Length

1000/ 2000 meters ± 5%

Mechanical Characteristics

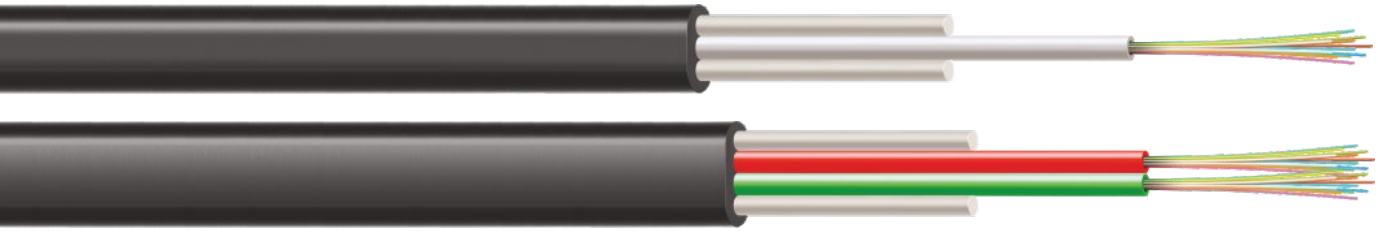
Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	20 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	1 Nm, 1 Impacts
Crush Resistance (N [IEC 60794-1-21-E3A]	500 N/ (100 X 100 mm)
Torsion Resistance [IEC 60794-1-21-E7]	5 Cycle (± 180)°

2F - 48F SINGLE SHEATH FLAT DROP WITH FRP EMBEDDED OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

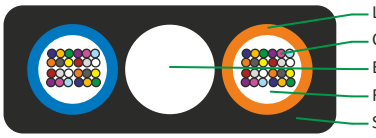
Applications

Suitable for duct installation



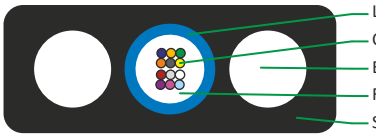
Typical Cross section

Cable Cross section of 48 Fiber



Cable Cross section of 24 Fiber

Cable Cross section of 12 Fiber



Cable Construction Details

- Up to 48 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G.657A1 & G.657A2)
- Loose buffer tubes fully filled with Thixotropic Jelly & Fiber.
- UV Stabilized PE outer sheath, Black
- FRP Embedded in outer sheath.
- Rip cord to open the sheath

Technical Characteristics

FIBER COUNT	DIMENSION (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
6	3.0 X 6.5	25	1300	650	10D	20D	-10° C to +50° C	-40° C to +70° C
12	3.7 X 7.7	35	2000	1000	10D	20D	-10° C to +50° C	-40° C to +70° C
18	4.3 X 7.8	40	2000	1000	10D	20D	-10° C to +50° C	-40° C to +70° C
24	3.6 X 8.6	40	1300	650	10D	20D	-10° C to +50° C	-40° C to +70° C
48	4.5 x 9.6	50	1500	750	10D	20D	-10° C to +50° C	-40° C to +70° C

Fiber & Tube colour coding

Without ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Voilet	Pink	Aqua

With ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Voilet	Pink	Aqua

• More than 12 fiber we provide Ring mark above the coloured fiber.

Special Features

- Completely dielectric cable/ non metallic cable immune to electromagnetic interferences.
- The cable is usually used in rural areas as self-supporting drop cable, enable subscribers access to the distribution network.
- Small size and Dimension for easy to strip.
- Excellent crush resistance because of the flat shape jacket.
- Good mechanical and temperature performance.

Drum Length

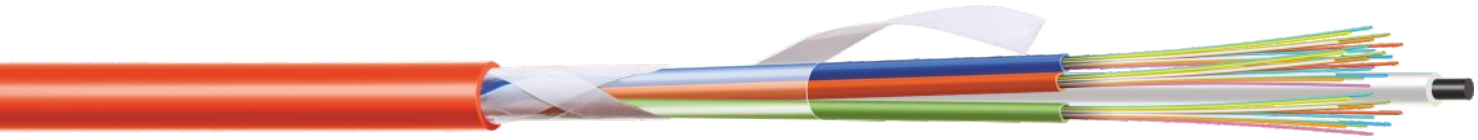
2000/ 4000 meters ± 5%

12F - 576F SINGLE JACKET MULTI TUBE MICRO DUCT (200 MICRON) FIBER OPTIC CABLE

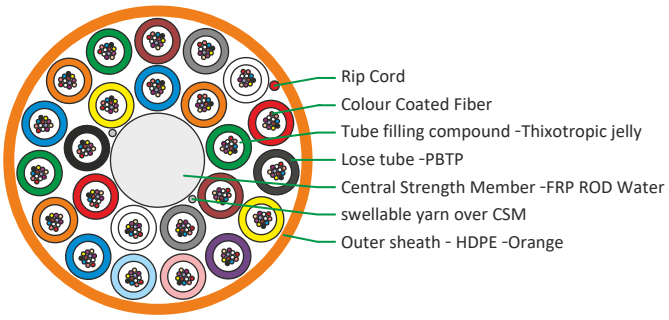
Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- Suitable for Duct Installation, pulled & blown



Typical Cross section of 96F



Cable Construction Details

- Up to 576 enhance low water peak single mode fibers in full compliance with ITU-T-G.657A1 (Also available with G.657A2).
- 6/8/12/24 fiber per tube combinations are available in 6/8/12/18/24 element constructions.
- Non metallic anti-buckling FRP rod as Central Strength Member.
- Loose buffer tubes fully filled with Thixotropic Jelly & Fibers.
- Loose buffer tubes S-Z Stranded (Water Swellable Yarn over CSM).
- UV Stabilized PE outer sheath, Black.
- Rip cord to open the sheath.

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
12-72	4.7	20	500	300	10D	20D	-10° C to +50° C	-40° C to +70° C
96	5.4	28	1000	750	10D	20D	-10° C to +50° C	-40° C to +70° C
144	7.0	45	1800	1200	10D	20D	-10° C to +50° C	-40° C to +70° C
192	7.1	43	1200	600	10D	20D	-10° C to +50° C	-40° C to +70° C
216	7.1	43	1200	600	10D	20D	-10° C to +50° C	-40° C to +70° C
288	8.1	62	1500	1000	10D	20D	-10° C to +50° C	-40° C to +70° C
144(24F/Tube)	5.7	30	1000	500	10D	20D	-10° C to +50° C	-40° C to +70° C
192(24F/Tube)	6.6	43	1500	1000	10D	20D	-10° C to +50° C	-40° C to +70° C
216(24F/Tube)	7.2	50	1500	1000	10D	20D	-10° C to +50° C	-40° C to +70° C
288(24F/tube)	8.8	70	1500	1000	10D	20D	-10° C to +50° C	-40° C to +70° C
432(24F/Tube)	9.0	70	1200	800	10D	20D	-10° C to +50° C	-40° C to +70° C
576(24F/Tube)	10.4	100	1500	1000	10D	20D	-10° C to +50° C	-40° C to +70° C

Fiber & Tube colour coding

Without ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Voilet	Pink	Aqua

With ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Voilet	Pink	Aqua

- More than 12 fiber we provide Black ring mark above the colored
- fiber. More than 12 Tube we provide Stripe above the colored tube.

Special Features

- Single layer and Multi-layer stranded construction.
- Low friction coefficient sheath design and materials assures long air blowing distance.
- Easy to bend, laying and operate with small diameter, light weight.
- Flexible buffer tubes provide easy fiber routing inside closure.
- All nonmetallic structure, so there is no requirements for grounding.
- This cable is suitable for construction in crowded metropolitan area network pipelines and avoiding destructive excavation in the past.

Mechanical Characteristics

Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	20 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	3 Nm, 1 Impacts
Crush Resistance (N) [IEC 60794-1-21-E3]	1000 N (100 X 100 mm)
Torsion Resistance [IEC 60794-1-21-E7]	10 Cycle (± 180)°
Water Penetration [IEC 60794-1-22-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours

Drum Length

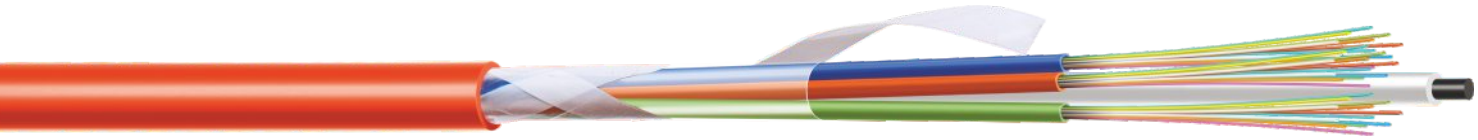
2000/ 4000 meters ± 5%

12F- 576F SINGLE SHEATH MULTI TUBE MICRO DUCT (250 MICRON) FIBER OPTIC CABLE

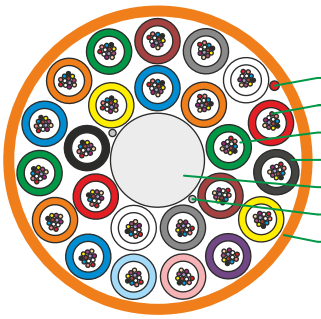
Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- Suitable for Duct Installation, pulled & blown.



Typical Cross section of 96F



Cable Construction Details

- Up to 576 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available with G.657A1 & G.657A2)
- 6/8/12/24 fiber per tube combinations are available in 6/8/12/18/24 element constructions.
- Nonmetallic anti-buckling FRP rod as Central Strength Member.
- Loose buffer tubes fully filled with Thixotropic Jelly & Fibers.
- Loose buffer tubes S-Z Stranded (Water Swellable Yarn over CSM)UV Stabilized PE outer sheath, Black.
- Rip cord to open the sheath.

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
12-72(12F/Tube)	5.4	24	600	350	10D	20D	-10° C to +50° C	-40° C to +70° C
96(12F/Tube)	6.2	35	1000	750	10D	20D	-10° C to +50° C	-40° C to +70° C
144(12F/Tube)	8.0	55	1500	1000	10D	20D	-10° C to +50° C	-40° C to +70° C
192(12F/Tube)	8.2	55	1200	750	10D	20D	-10° C to +50° C	-40° C to +70° C
216(12F/Tube)	8.2	55	1200	750	10D	20D	-10° C to +50° C	-40° C to +70° C
288(12F/Tube)	9.4	75	1500	1000	10D	20D	-10° C to +50° C	-40° C to +70° C
144(24F/Tube)	6.8	40	1000	500	10D	20D	-10° C to +50° C	-40° C to +70° C
192(24F/Tube)	8.0	58	2000	1200	10D	20D	-10° C to +50° C	-40° C to +70° C
216(24F/Tube)	8.8	65	1500	800	10D	20D	-10° C to +50° C	-40° C to +70° C
288(24F/Tube)	10.6	100	3000	1500	10D	20D	-10° C to +50° C	-40° C to +70° C
432(12F/Tube)	10.8	95	1500	800	10D	20D	-10° C to +50° C	-40° C to +70° C
576(12F/Tube)	12.6	130	3000	1500	10D	20D	-10° C to +50° C	-40° C to +70° C

Fiber & Tube colour coding

Without ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Voilet	Pink	Aqua

With ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Voilet	Pink	Aqua

- More than 12 fiber we provide Black ring mark above the colored
- fiber. More than 12 Tube we provide Stripe above the colored tube.

Special Features

- Single layer and Multi-layer stranded construction.
- Low friction coefficient sheath design and materials assures long air blowing distance.
- Easy to bend, laying and operate with small diameter, light weight.
- Flexible buffer tubes provide easy fiber routing inside closure.
- All nonmetallic structure, so there is no requirements for grounding.
- This cable is suitable for construction in crowded metropolitan area network pipelines and avoiding destructive excavation in the past.

Mechanical Characteristics

Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	20 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	3 Nm, 1 Impacts
Crush Resistance (N) [IEC 60794-1-21-E3]	1000 N (100 X 100 mm)
Torsion Resistance [IEC 60794-1-21-E7]	10 Cycle (± 180)°
Water Penetration [IEC 60794-1-22-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours

Drum Length

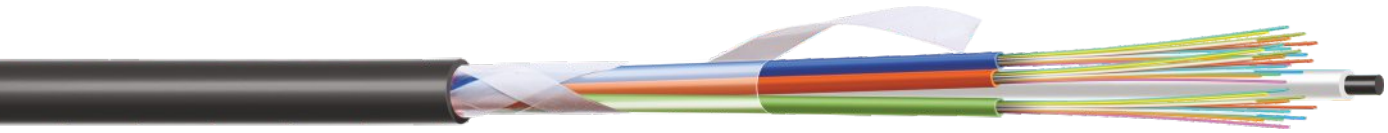
2000/ 4000 meters ± 5%

12F-96 SINGLE SHEATH FIBER SUPER LEAN, MICRO OPTICAL FIBER CABLE

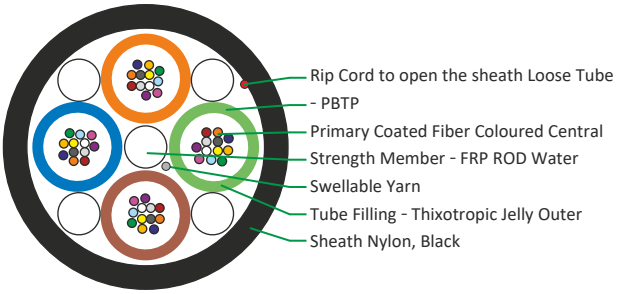
Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Application

- Suitable for Installation in Micro Duct.



Typical Cross section of 48 Fiber



Cable Construction Details

- Up to 96 enhance low water peak single mode fibers in full compliance with ITU-T-G.652.D (also available G.657A1 & G657A2).
- Non metallic anti-buckling FRP rod as Central Strength Member.
- Loose buffer tubes fully filled with Thixotropic Jelly & Fiber.
- Loose buffer tubes S-Z Stranded along with FRP to provide a circular shaped cable.
- Cable core is Dry (Water Swellable Yarn over CSM).
- Cable core is wrapped with water swellable tape.
- Outer sheath NYLON, Black.
- Rip cord to open the sheath.

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
200um fiber G.657A1 & G.657A2 With 24F/tube design								
24F – 48F	4.0	15	300 N	150 N	30D	40D	-10° C to +50° C	-30° C to +70° C
96F	4.8	20	300 N	150 N	30D	40D	-10° C to +50° C	-30° C to +70° C
250um fiber G.652D, G.657A1 & G.657A2 With 12F/tube design								
12F – 48F	4.3	16	250 N	120 N	30D	40D	-10° C to +50° C	-30° C to +70° C

Fiber & Tube colour coding

Without ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Voilet	Pink	Aqua

With ring mark

Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Voilet	Pink	Aqua

More than 12 fiber we provide Black ring mark above the colored fiber.

Special Features

- Single layer S-Z stranded construction.
- Flexible buffer tubes provide easy fiber routing inside closure.
- Completely dielectric cable immune to electromagnetic interferences.
- Offers strength and corrosion resistance for aerial application also.

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

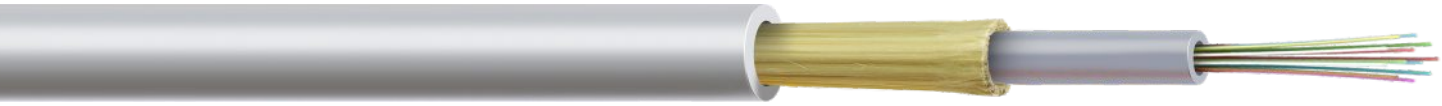
Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	40 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	1 Nm, 1 Impacts
Crush Resistance (N) [IEC 60794-1-21-E3 A]	300 N /(100 X 100 mm)1
Torsion Resistance [IEC 60794-1-21-E7]	5 Cycle (± 180)°
Water Penetration [IEC 60794-1-22-F5 B]	1Meter Water Head, 3 Meters Cable Sample, 24 Hours

1F - 24F SINGLE SHEATH MICRO MODULE OPTICAL FIBER CABLE

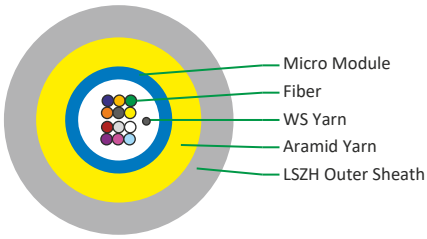
Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

- The universal design is suited for use in most network arenas, including backbone, access and distribution.
- Quick fiber preparation ready for installation
- Installation Outdoor to Indoor



Typical Cross section of 12 Fiber



Cable Construction Details

- The micro-module unit consist of up-to 24 fibers, an easily strippable and flexible.
- High Modulus, Aramid yarn as peripheral strength member
- LSZH Outer sheath

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
1F	4.0	15	300	150	10D	20D	-5° C to +45° C	-30° C to +60° C
2F	4.0	15	300	150	10D	20D	-5° C to +45° C	-30° C to +60° C
4F	4.0	15	300	150	10D	20D	-5° C to +45° C	-30° C to +60° C
6F	4.5	18	300	150	10D	20D	-5° C to +45° C	-30° C to +60° C
8F	4.5	18	300	150	10D	20D	-5° C to +45° C	-30° C to +60° C
12F	4.8	22	300	150	10D	20D	-5° C to +45° C	-30° C to +60° C
24F	5.5	26	300	150	10D	20D	-5° C to +50° C	-10° C to +60° C

Fiber Colour Coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Micro Module Colour Coding

Blue — For Fiber Count 12F We provide the above colour code

Special Features

- Reduced diameter micro modules
- Flexible Micro modules are easily removed without the need for tools
- Reduce installation time and costs
- Small cable diameter & light weight
- Requires no grounding or bonding due to all-dielectric construction
- All dielectric construction.

Mechanical Characteristics

Impact Resistance [IEC 60794-1-2-E4]	Height 0.3 meters, Weight = 0.1 Kg, 1 Nos
Crush Resistance [IEC 60794-1-2-E3]	500 N [100 X 100 mm] for 10 minutes, 3 times 500 mm apart
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle [± 180°20 N Weight, Length under Test-1 meters
Water Penetration [IEC 60794-1-22-F5 B/C]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours

Drum Length

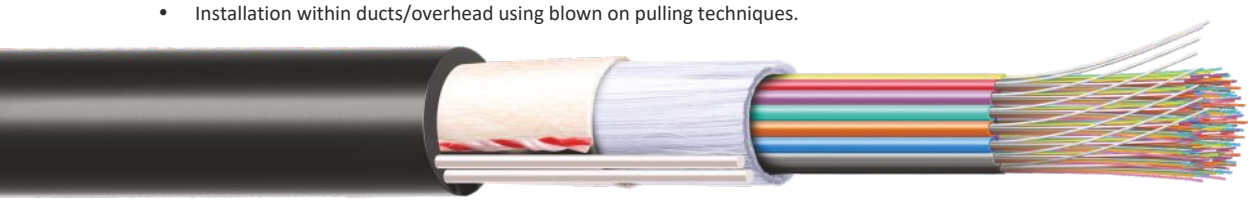
2000/ 4000 meters ± 5%

6F - 144F SINGLE SHEATH MULTI TUBE MICRO MODULE 4FRP DESIGN DUCT / ADSS OPTICAL FIBER CABLE

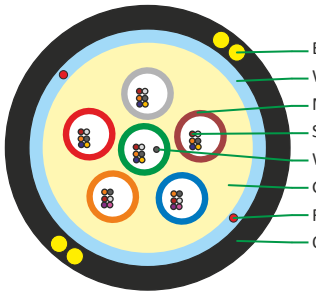
Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

- The universal design is suited for use in most network arenas, including backbone, access and distribution.
- Quick fiber preparation ready for installation.
- Installation within ducts/overhead using blown on pulling techniques.



Typical Cross section of 36 Fiber



Cable Construction Details

- The micro-module unit consist of 6 fibers along with WS Yarn an easily strippable and flexible.
- Glass yarn as peripheral strength member.
- Non-metallic and anti-buckling element FRP rod (4 nos) used as Embedded Strength Member.
- Water Blocking Element wrapped over Aramid Yarn.
- HDPE Outer sheath, Black Colour, UV Stabilized.

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
6F	6.0	32	1800	800	15D	20D	-5° C to +45° C	-30° C to +60° C
12F	7.5	45	2400	1000	15D	20D	-5° C to +45° C	-30° C to +60° C
24F	7.5	45	2400	1000	15D	20D	-5° C to +45° C	-30° C to +60° C
36F	8.5	60	2400	1000	15D	20D	-5° C to +45° C	-30° C to +60° C
48F	8.5	60	2800	1200	15D	20D	-5° C to +45° C	-30° C to +60° C
72F	10.5	90	4000	1800	15D	20D	-5° C to +45° C	-30° C to +60° C
96F	11.5	105	4500	2100	15D	20D	-5° C to +45° C	-30° C to +60° C
144F	13.0	130	5400	2500	15D	20D	-5° C to +45° C	-30° C to +60° C

Fiber & Micro Module Colour Coding

Fiber Colour Coding

Blue	Orange	Green	Brown	Grey	White

Micro Module Colour Coding

Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Voilet	Pink	Aqua

- For Fiber Count 12F We provide the above colour code
- For Higher Fiber count we provide contrast dot marking of above colour code

Special Features

- Reduced diameter micro modules.
- Flexible Micro modules are easily removed without the need for tools.
- Reduce installation time and costs.
- Small cable diameter & lightweight.
- Requires no grounding or bonding due to all-dielectric construction.

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

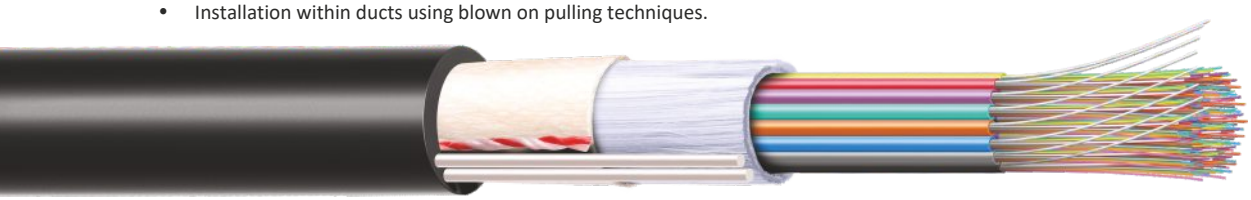
Kink Resistance (mm) [IEC 60794-1-2-E10]	15 x D, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	5 Nm, 3 Nos at 500mm apart
Crush Resistance (N) [IEC 60794-1-2-E3]	2000 N [100 X 100 mm] for 60 sec
Torsion Resistance [IEC 60794-1-2-E7]	5 Cycle [± 180°40 N Weight, Length under Test-2 meters
Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, r = 20 X D, 5 Kg Load, D = Cable Diameter
Water Penetration [IEC 60794-1-22-F5 B/C]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours
Micro Module Strip-ability	Micro Module Easy Strippable, 1 meter in I minutes

12F - 288F SINGLE SHEATH MULTI TUBE MICRO MODULE 4FRP DESIGN DUCT / ADSS OPTICAL FIBER CABLE

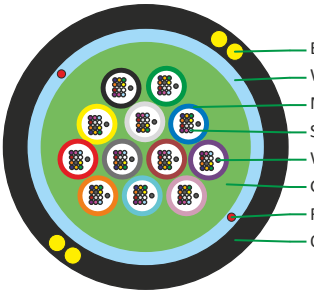
Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

- The universal design is suited for use in most network arenas, including backbone, access and distribution.
- Quick fiber preparation ready for installation.
- Installation within ducts using blown on pulling techniques.



Typical Cross section of 144 Fiber



Cable Construction Details

- The micro-module unit consist of 12 fibers along with WS Yarn an easily strippable and flexible.
- Glass yarn as peripheral strength member.
- Non-metallic and anti-buckling element FRP rod (4 nos) used as Embedded Strength Member.
- Water Blocking Element wrapped over Aramid Yarn.
- HDPE Outer sheath, Black Colour, UV Stabilized.

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
			Installation	Operation	Installation	Operation	Installation	Operation
12F	6.0	32	1500	700	15D	20D	-5° C to +45° C	-30° C to +60° C
24F	7.5	40	2000	900	15D	20D	-5° C to +45° C	-30° C to +60° C
36F	7.5	40	2000	900	15D	20D	-5° C to +45° C	-30° C to +60° C
48F	8.5	50	800	1200	15D	20D	-5° C to +45° C	-30° C to +60° C
72F	10.5	80	3800	1600	15D	20D	-5° C to +45° C	-30° C to +60° C
96F	11.2	100	4500	2000	15D	20D	-5° C to +45° C	-30° C to +60° C
144F	12.3	110	5000	2300	15D	20D	-5° C to +45° C	-30° C to +60° C
288F	15.0	160	5000	2300	15D	20D	-5° C to +45° C	-30° C to +60° C

Fiber & Micro Module Colour Coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

- For Fiber Count 12F We provide the above colour code
- For Higher Fiber count we provide contrast dot marking of above colour code

Special Features

- Reduced diameter micro modules.
- Flexible Micro modules are easily removed without the need for tools.
- Reduce installation time and costs.
- Small cable diameter & lightweight.
- Requires no grounding or bonding due to all-dielectric construction.

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

Kink Resistance (mm) [IEC 60794-1-2-E10]	15 x D, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	5 Nm, 3 Nos at 500mm apart
Crush Resistance (N) [IEC 60794-1-2-E3]	2000 N [100 X 100 mm] for 60 sec
Torsion Resistance [IEC 60794-1-2-E7]	5 Cycle [± 180°40 N Weight, Length under Test-2 meters
Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, r = 20 X D, 5 Kg Load, D = Cable Diameter
Water Penetration [IEC 60794-1-22-F5 B/C]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours
Micro Module Strip-ability	Micro Module Easy Strippable, 1 meter in I minutes

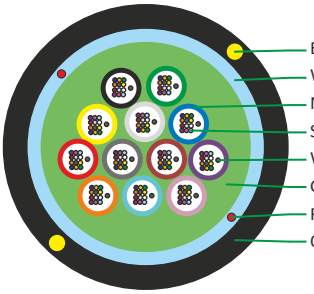
12F-1152F SINGLE SHEATH MULTI TUBE MICRO MODULE WITH 2FRP & GLASS YARN DUCT FIBER OPTIC CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

- The universal design is suited for use in most network arenas, including backbone, access and distribution.
- Quick fiber preparation ready for installation.
- Installation within ducts using blown on pulling techniques.

Typical Cross section of 144 Fiber



Cable Construction Details

- The micro-module unit consist of 12 fibers along with WS Yarn an easily strippable and flexible.
- Water Blocking Glass yarn as peripheral strength member.
- Non-metallic and anti-buckling element FRP rod (2 nos) used as Embedded Strength Member.
- Water Blocking Element wrapped over Aramid Yarn.
- HDPE Outer sheath, Black Colour, UV Stabilized.

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
12F	5.7	28	800	350	10D	20D	-5° C to +45° C	-30° C to +60° C
24F	7.0	35	800	350	10D	20D	-5° C to +45° C	-30° C to +60° C
36F	7.4	38	800	350	10D	20D	-5° C to +45° C	-30° C to +60° C
48F	7.8	45	1300	500	10D	20D	-5° C to +45° C	-30° C to +60° C
72F	8.4	52	1800	500	10D	20D	-5° C to +45° C	-30° C to +60° C
96F	9.4	65	1800	600	10D	20D	-5° C to +45° C	-30° C to +60° C
144F	10.4	78	2200	600	10D	20D	-5° C to +45° C	-30° C to +60° C
288F	12.4	112	3000	800	10D	20D	-5° C to +45° C	-30° C to +60° C
432F	15.5	170	3000	1200	10D	20D	-5° C to +45° C	-30° C to +60° C
576F	17.2	202	3000	1200	10D	20D	-5° C to +45° C	-30° C to +60° C
720F	18.5	228	3000	1200	10D	20D	-5° C to +45° C	-30° C to +60° C
864F	19.5	254	3000	1200	10D	20D	-5° C to +45° C	-30° C to +60° C
1152F	22.0	305	3000	1200	10D	20D	-5° C to +45° C	-30° C to +60° C

Fiber & Micro Module Colour Coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

For Fiber Count 12F We provide the above colour code
For Higher Fiber count we provide contrast dot marking of above colour code

Special Features

- Reduced diameter micro modules.
- Flexible Micro modules are easily removed without the need for tools.
- Reduce installation time and costs.
- Small cable diameter & lightweight.
- Requires no grounding or bonding due to all-dielectric construction.

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

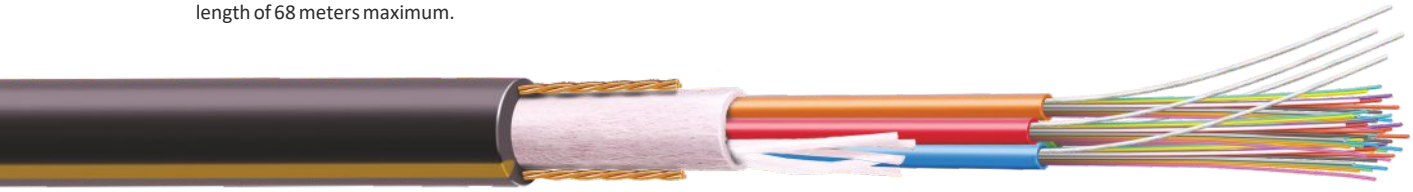
Kink Resistance (mm)[IEC 60794-1-2-E10]	10 x D, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	5 Nm, 3 Nos at 500mm apart
Crush Resistance (N) [IEC 60794-1-2-E3]	2000 N [100 X 100 mm] for 60 sec
Torsion Resistance [IEC 60794-1-2-E7]	5 Cycle [± 180°40 N Weight, Length under Test-1 meters
Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, r = 20 X D, 5 Kg Load, D = Cable Diameter
Water Penetration [IEC 60794-1-22-F5 B/C]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours

2F-96F SINGLE SHEATH ULTRA LIGHT WEIGHT MICRO MODULE OPTICAL FIBER CABLE

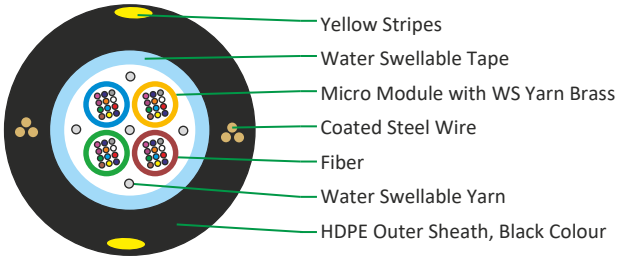
Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- This Cable is suitable for FTTH Roll out and a range of light weight drop type design / construction cables for installation in the Fiber Network in Overhead and Underground environments.
- This cable meets the breaking load requirement less than 2000 N in the interests of safety for overhead applications. It benefits form unique safety features of predictable breaking load which is essential in the event of vehicle strike, to protect equipment and minimize the risk of loss of tangible assets that could potentially harm personnel, property or equipment and will be a fully safe aerial installation solution. Span length of 68 meters maximum.



Typical Cross section of 48 Fiber



Cable Construction Details

- The Dry Micro Module consist of 12 fibers an easily strippable and flexible. WS Yarn along with Fiber.
- Dry type core filled with Water Swellable Material.
- Fillers/Dummy for maintaining circularity of cable core.
- Cable Core Wrapped with WS Tape.
- Brass Coated Steel Wire as Embedded strength members protect from against buckling.
- Outer Sheath of HDPE, UV Stabilized, Black Colour.

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
2F	7.0	36	950	500	10D	20D	-10°C to +60°C	-30°C to +85°C
4F	7.0	36	950	500	10D	20D	-10°C to +60°C	-30°C to +85°C
6F	7.0	36	950	500	10D	20D	-10°C to +60°C	-30°C to +85°C
8F	7.0	36	950	500	10D	20D	-10°C to +60°C	-30°C to +85°C
12F	7.0	36	950	500	10D	20D	-10°C to +60°C	-30°C to +85°C
24F	7.0	36	950	500	10D	20D	-10°C to +60°C	-30°C to +85°C
48F	7.0	36	950	500	10D	20D	-10°C to +60°C	-30°C to +85°C
72F	7.0	36	500	950	10D	20D	-10°C to +60°C	-30°C to +85°C
96F	7.0	36	500	950	10D	20D	-10°C to +60°C	-30°C to +85°C

Fiber & Micro Module Colour Coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

For Fiber Count 12F We provide the above colour code
For Higher Fiber count we provide contrast dot marking of above colour code

Special Features

- Reduced diameter Micro Module manufactured from soft and flexible elastomeric material.
- Micro Module are kink resistant and easily removed without the need for tools.
- Diametrically opposite embedded strength members provide excellent crush protection and Tensile performance.
- Ultra-compactness, easier storage and faster installation.

Drum Length

2000/ 4000meters ± 5%

Mechanical Characteristics

Kink Resistance (mm)[IEC 60794-1-2-E10]	10 x D, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	Height 0.5 meters, Weight =1 Kg, 3 Nos
Crush Resistance (N) [IEC 60794-1-2-E3]	2000 N [100 X 100 mm] for 60 sec
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle [± 180°1 Kg Weight, Length under Test-2 meters
Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, r = 20 X D, 1 Kg Load, D = Cable Diameter
Water Penetration [IEC 60794-1-22-F5 B/C]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours

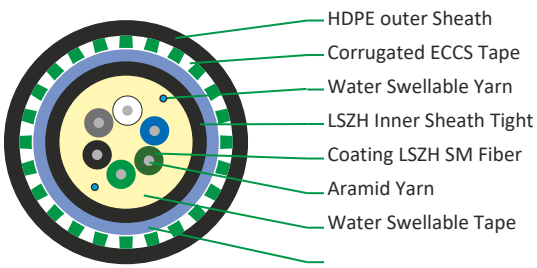
1F TO 6F DOUBLE SHEATH FTA (FIBER TO ANTENNA) OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- To provide high-speed, low-latency and reliable connectivity between the cellular base stations and the remote radio heads (RRHs) or antennas.
- Wireless telecommunications networks.

Typical Cross section



Cable Construction Details

- Tight Coating [Tight Buffer].
- Peripheral Strength member.
- Inner Sheath LSZH.
- Wrapping Tape.
- Corrugated ECCS tape.
- HDPE Outer sheath.

Technical Characteristics

FIBER COUNT	TIGHT BUFFER DIAMETER (µm)Nominal	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
				Installation	Operation	Installation	Operation	Installation	Operation
2	900	8.0	60	500	300	10D	20D	-20° C to +70° C	-20° C to +70° C
4	900	8.2	62	500	300	10D	20D	-20° C to +70° C	-20° C to +70° C
6	900	9.5	82	500	300	10D	20D	-20° C to +70° C	-20° C to +70° C

Fiber Color Coding

Fnatural or as per Customer Require EIA 359-A, IEC Publication 304(4) TIA 598D, IEC TR 63194 Latest Issue

Tight Buffer Color Coding

Blue | Orange | Green | Brown | Grey | White

Special Features

- Enhanced Data Rates.
- Lower Latency.
- Increased Capacity.
- Longer Distance Reach.
- Mechanical Protection.
- Rodent Resistant.

Mechanical Characteristics

Impact Resistance (Nm) [IEC 60794-1-2-E4]	1 J, 3 Impacts
Crush Resistance (N) [IEC 60794-1-2-E3]	1500 N [100 X 100 mm] for 5 minutes, 3 times at 150 mm apart
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle [± 180°1 Kg Weight, Length under Test-2 meters
Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, r = 20 X D, 1 Kg Load, D = Cable Diameter

Drum Length

2000/ 4000meters ± 5%

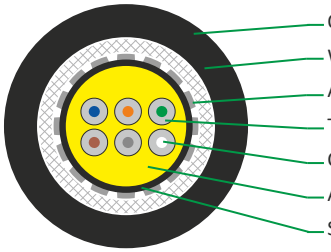
1F - 6F DOUBLE SHEATH SPIRAL ARMOURED WITH WIRE BRAIDING OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- To provide high-speed, low-latency and reliable connectivity between the cellular base stations and the remote radio heads (RRHs) or antennas.
- Wireless telecommunications networks.

Typical Cross section of 24 Fiber



Cable Construction Details

- Tight Coating [Tight Buffer].
- Peripheral Strength member.
- Inner Sheath LSZH.
- Steel Wire Spiral Armoring.
- Steel Wire Barding.
- LSZH Outer sheath.

Technical Characteristics

FIBER COUNT	TIGHT BUFFER DIAMETER (µm)Nominal	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
				Installation	Operation	Installation	Operation	Installation	Operation
up to 6	900	6.3	75	500	300	10D	20D	-20° C to +70° C	-20° C to +70° C

Tight Buffer Colour Coding

Natural or as per Customer Require EIA 359-A, IEC Publication 304(4) TIA 598D, IEC TR 63194 Latest Issue

Fiber Colour Coding

Blue | Orange | Green | Brown | Grey | White

Special Features

- Lower Latency.
- Longer Distance Reach.
- Flexible.
- Light Weight.
- Mechanical Protection.
- Rodent and Pest Protection.

Mechanical Characteristics

Impact Resistance (Nm) [IEC 60794-1-2-E4]	Height 0.5 meters, Weight = 1 Kg, 3 nos at different places
Crush Resistance (N) [IEC 60794-1-2-E3]	3000 N [100 X 100 mm] for 5 minutes, 3 times at 150 mm apart
Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, r = 20 X D, 1 Kg Load, D = Cable Diameter
Flame Test [IEC 60332-3-24]	Complied

Drum Length

2000/ 4000meters ± 5%

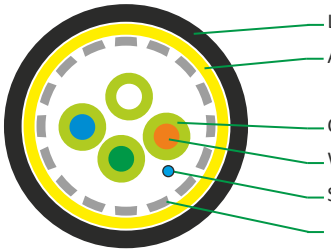
2F - 6F SINGLE SHEATH SPIRAL ARMOURED OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant

Applications

- To provide high-speed, low-latency and reliable connectivity between the cellular base stations and the remote radio heads (RRHs) or antennas.
- Wireless telecommunications networks.

Typical Cross section of 4F



Cable Construction Details

- Tight Coating [Tight Buffer] Nylon.
- Steel Wire Spiral Armoring.
- Peripheral Strength member.
- LSZH Outer sheath.

Technical Characteristics

FIBER COUNT	TIGHT BUFFER DIAMETER (µm)Nominal	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
				Installation	Operation	Installation	Operation	Installation	Operation
2	600	4.8	30	500	300	10D	20D	-20° C to +70° C	-20° C to +70° C
4	600	5.7	47	450	300	10D	20D	-20° C to +70° C	-20° C to +70° C
6	600	6.0	51	450	300	10D	20D	-20° C to +70° C	-20° C to +70° C

Tight Buffer Color Coding

Natural

Fiber Color Coding

Blue | Orange | Green | Brown | Grey | White

Special Features

- Lower Latency
- Longer Distance Reach
- Flexible
- Light Weight
- Mechanical Protection
- Rodent and Pest Protection

Mechanical Characteristics

Impact Resistance (Nm) [IEC 60794-1-2-E4]	Height 0.5 meters, Weight = 1 Kg, 10 nos at different places
Crush Resistance (N) [IEC 60794-1-2-E3]	2000 N [100 X 100 mm] for 5 minutes, 3 times at 150 mm apart
Water Penetration [IEC 60794-1-2-F5 B]	1 Meter Water Head,3 Meters Cable Sample, 24 Hours

Drum Length

2000/ 4000meters ± 5%

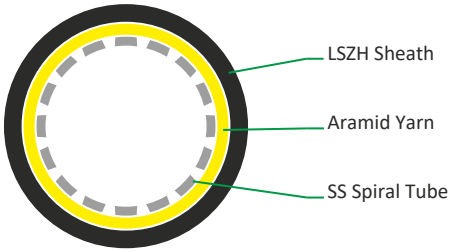
SINGLE SHEATH SPIRAL FURCATION TUBE CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- To protect the bare or tight buffered optical fibers and to allow them to be terminated with connectors.

Typical Cross section



Cable Construction Details

- Stainless Steel Spiral tube.
- Aramid Yarn.
- LSZH Sheath, Black Colour.

Technical Characteristics

DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
		Installation	Operation	Installation	Operation	Installation	Operation
4.8	30	450	300	15D	20D	-20° C to +70° C	-20° C to +70° C
2.75	12	250	170	15D	20D	-20° C to +70° C	-20° C to +70° C

Special Features

- Mechanical Protection.
- Flexibility.
- Rodent and Pest Protection.
- Environmental Protection.

Mechanical Characteristics

Kink Resistance (mm) [IEC 60794-1-2-E10]	15 x D, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	Height 0.5 meters, Weight = 0.5 Kg, 3 Nos
Crush Resistance (N) [IEC 60794-1-2-E3]	500 N/ 10cm

Drum Length

2000/ 4000meters ± 5%

STAINLESS STEEL WIRE ARMOURED TACTICAL CABLE FOR MILITARY APPLICATION

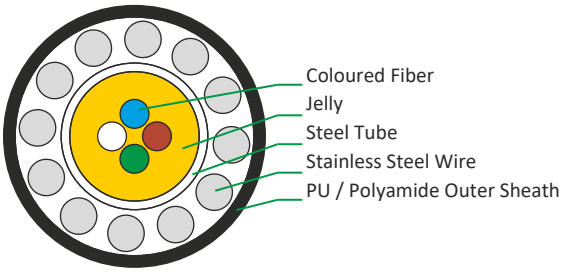
Tactical Optical Fiber Cables

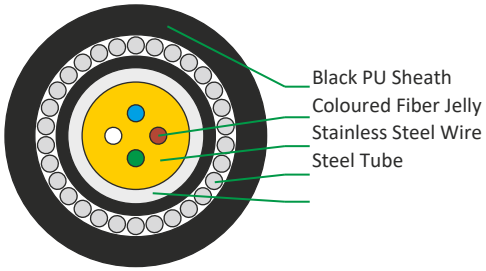
Water blocked | Flame resistant | Aerial | Outdoor | Shotgun resistant | Track resistant (25 kV) | RoHS compliant

Applications

- Indoor / Outdoor
- Suitable for rapid deployment in extreme environmental conditions.
- For military application
- Temporary robust communication lines and mobile applications with Rodent protection

Typical Cross section of 4 Fiber





Technical Characteristics

FIBER COUNT	DIAMETER SHEATH	WEIGHT (mm)	(Kg./Km)	BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
		Max.	Nominal	Installation	Operation	Installation	Operation
UPTO 6F	Double Sheath	6.0	70	15D	20D	-10^{0} to $+50^{0}$ C	-40^{0} to $+70^{0}$ C
12F	Double Sheath	7.0	95	15D	20D	-10^{0} to $+50^{0}$ C	-40^{0} to $+70^{0}$ C
UPTO 6F	Single Sheath	6.0	45	15D	20D	-10^{0} to $+50^{0}$ C	-40^{0} to $+70^{0}$ C

Color Coding - Fiber & Tube

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Special Features

- Cut resistant, Polyurethane outer jacket
- Flexible construction for multiple deployment
- Performance in wide temp range
- High permissible tensile strength
- Excellent protection against rodents and termites
- Durable in high traffic areas
- Ruggedized cable and easy to use in the field
- High impact and crush resistance

Mechanical Characteristics

Tensile Strength Permanent	900 N max. 1000
Crush Strength	N/cm 200 (Min.)
Impact Resistance	2000 Cycle (Min.)
Flex Resistance	-30^{0} C to $+65^{0}$ C
Storage Temperature Breaking	
Load	>3500 N
Water Pressure	>500 Bar

Drum Length

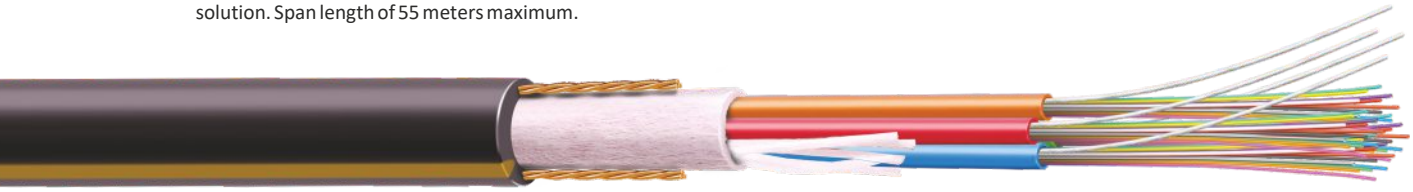
500/ 1000/ 2000 meters ± 5%

2F-96F SINGLE SHEATH ULTRA LIGHT WEIGHT COMPACT FIBER UNIT OPTICAL FIBER CABLE

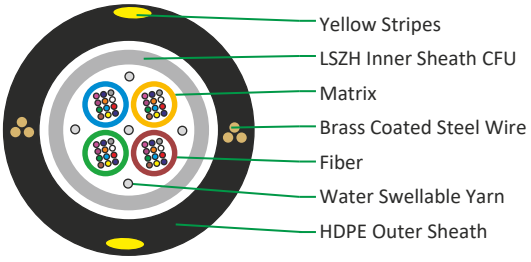
Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- This Cable is suitable for FTTH Roll out and a range of light weight drop type design / construction cables for installation in the Fiber Network in Overhead and Underground environments.
- This cable meets the breaking load requirement between 1350 N to 2000 N in the interests of safety for overhead applications. It benefits form unique safety features of predictable breaking load which is essential in the event of vehicle strike, to protect equipment and minimize the risk of loss of tangible assets that could potentially harm personnel, property or equipment and will be a fully safe aerial installation solution. Span length of 55 meters maximum.



Typical Cross section of 48 Fiber



Cable Construction Details

- The CFU units consist of groups of fibers.
- The CFU are surrounded with water swelling elements to protect against moisture ingress.
- Inner Sheath of HFFR, Black Colour.
- Embedded strength members protect from against buckling.
- Outer Sheath of HDPE, UV Stabilized, Black Colour.

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
4F	7.0	38	950	500	10D	12D	-40° C to +60° C	-40° C to +60° C
12F	7.2	38	950	500	10D	12D	-40° C to +60° C	-40° C to +60° C
24F	7.2	38	950	500	10D	12D	-40° C to +60° C	-40° C to +60° C
36F	7.2	38	950	500	10D	12D	-40° C to +60° C	-40° C to +60° C
48F	7.2	38	950	500	10D	12D	-40° C to +60° C	-40° C to +60° C
72F	7.1	38	950	500	10D	12D	-40° C to +60° C	-40° C to +60° C
96F	7.1	38	950	500	10D	12D	-40° C to +60° C	-40° C to +60° C

CFU Color coding

Natural
We provide contrast dot marking on CFU

Fiber Colour Coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

- For Fiber Count 12F We provide the above colour code
- For Higher Fiber count We provide contrast dot marking of above colour code

Special Features

- Reduced diameter CFUs manufactured from soft and flexible elastomeric material.
- Diametrically opposed embedded strength members provides excellent crush protection and Tensile performance.
- CFUs are kink resistant and easily removed without the need for tools.
- Ultra-compactness, easier storage and faster installation.
- UV protected.

Drum Length

2000/ 4000meters ± 5%

Mechanical Characteristics

Kink Resistance (mm) [IEC 60794-1-2-E10]	10 x D, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	10 Nm, Number of Impact 1, No. of Location: 3 at 100 mm apart.
Crush Resistance (N) [IEC 60794-1-2-E3]	2000 N [100 X 100 mm] for 10 minutes, Total number of applied load: 3 at 250 mm apart
Torsion Resistance [IEC 60794-1-2-E7]	5 Cycle [± 180°100 N Weight, Length under Test 1 meters
Water Penetration [IEC 60794-1-22-F5 B]	Water Head 1 m, 3 Meters Cable Sample, 24 Hours

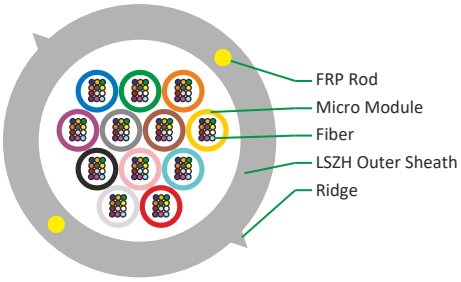
12F - 144F SINGLE SHEATH RETRACTABLE OPTICAL FIBER CABLE WITH RIDGE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | RoHS compliant

Applications

- These cables can be used for indoor installation.
- Window cuts into the sheath allow easy selection and extraction of single fiber unit for re-routing purposes without the need to dispose of excess cable
- Modules may be further blown, pushed or pulled (using pulling cords) inside micro-ducts.

Typical Cross section of 144 Fiber



Cable Construction Details

- The micro-module unit consist of 12 fibers, an easily strippable and flexible
- Non-metallic and anti-buckling element FRP rod (2 nos) used as Embedded Strength Member
- LSZH Outer sheath

Technical Characteristics

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
12F	≤ 6.0	≤ 26	500	300	15D	20D	-5° C to +60° C	-20° C to +60° C
24F	≤ 7.0	≤ 35	500	300	15D	20D	-5° C to +60° C	-20° C to +60° C
36F	≤ 8.0	≤ 46	500	300	15D	20D	-5° C to +60° C	-20° C to +60° C
48F	≤ 9.5	≤ 65	500	300	15D	20D	-5° C to +60° C	-20° C to +60° C
72F	≤ 10.0	≤ 72	500	300	15D	20D	-5° C to +60° C	-20° C to +60° C
96F	≤ 10.5	≤ 80	500	300	15D	20D	-5° C to +60° C	-20° C to +60° C
144F	≤ 12.0	≤ 98	500	300	15D	20D	-5° C to +60° C	-20° C to +60° C

Fiber Color Coding

Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Voilet	Pink	Aqua

Micro Module Color Coding

Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Voilet	Pink	Aqua

For Fiber Count 12F We provide the above color code

Special Features

- Low-bend-sensitivity fiber provides high bandwidth and excellent communication transmission property
- Two parallel strength members ensure good performance of crush resistance to protect the fiber
- Simple structure, light weight and high practicability
- All dielectric construction.

Mechanical Characteristics

Impact Resistance [IEC 60794-1-2-E4]	3 Nm, 3 Impacts at different places 500 mm apart
Repeated Bending [IEC 60794-1-2-E6]	25 Cycle, r = 20 X D, 20 N Load, D = Cable Diameter
Crush Resistance [IEC 60794-1-2-E3]	1000 N [100 X 100 mm] for 30 sec
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle [± 180°20 N Weight, Length under Test: 1 meters
Micro Module Strip-ability	1 meter in 1 minutes

Drum Length

2000/ 4000 meters ± 5%

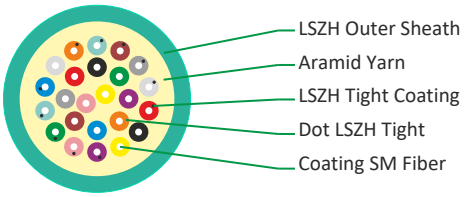
2F-48F SINGLE SHEATH FAN OUT TIGHT BUFFERED UNARMOURED OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- These cables are specifically designed for indoor/outdoor applications.
- Mainly used in intra-building backbones.
- Routing between telecommunications rooms and as a riser cable in Multi-Storey buildings.

Typical Cross section of 24 Fiber



Cable Construction Details

- LSZH Tight Buffer.
- High Modulus, Aramid yarn as strength member below inner sheath.
- UV Stabilized, LSZH Outer sheath, black.

Technical Characteristics

FIBER COUNT	TIGHT BUFFER DIAMETER (µm)Nominal	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
				Installation	Operation	Installation	Operation	Installation	Operation
2	900	4.8	20	800	500	10D	20D	-5° C to +60° C	-40° C to +70° C
4	900	5.2	24	800	500	10D	20D	-5° C to +60° C	-40° C to +70° C
6	900	5.7	28	800	500	10D	20D	-5° C to +60° C	-40° C to +70° C
8	900	6.2	32	800	500	10D	20D	-5° C to +60° C	-40° C to +70° C
12	900	7.0	42	800	500	10D	20D	-5° C to +60° C	-40° C to +70° C
16	900	7.5	48	1000	600	10D	20D	-5° C to +60° C	-40° C to +70° C
24	900	8.8	65	1500	700	10D	20D	-5° C to +60° C	-40° C to +70° C
32	900	9.5	72	1500	700	10D	20D	-5° C to +60° C	-40° C to +70° C
36	900	9.8	78	1700	800	10D	20D	-5° C to +60° C	-40° C to +70° C
48	900	10.8	94	2000	1000	10D	20D	-5° C to +60° C	-40° C to +70° C

Fiber & Micro Module Color Coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

- For Fiber Count 12F We provide the above colour code.
- For Higher Fiber count we provide contrast dot marking of above colour code.

Special Features

- 9900 Microns Tight buffered fibers support fast field installations.
- Reduce installation time and costs.
- Easy jacket removal using standard tools.
- Flexible and Fire retardant Inner & outer sheath with aramid yarns and Glass Yarn as tensile elements helps in easy installation in space constrained areas.
- LSZH sheath makes cable suitable for higher fire safety requirement.
- Small cable diameter & lightweight.
- Requires no grounding or bonding due to all-dielectric construction.

Mechanical Characteristics

Kink Resistance (mm) [IEC 60794-1-2-E10]	10 x D, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	Height 0.5 meters, Weight = 0.5 Kg, 3 Nos
Crush Resistance (N) [IEC 60794-1-2-E3]	500 N [100 X 100 mm] for 60 sec
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle [± 180°]1 Kg Weight, Length under Test-2 meters
Repeated Bending [IEC 60794-1-2-E6]	30 Cycle, r = 20 X D, 1 Kg Load, D = Cable Diameter

Drum Length

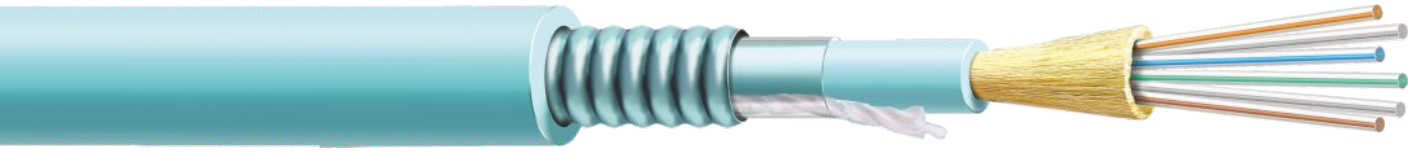
2000/ 4000meters ± 5%

6F-48F DOUBLE SHEATH FAN OUT ECCS TAPE ARMOURED OPTICAL FIBER CABLE

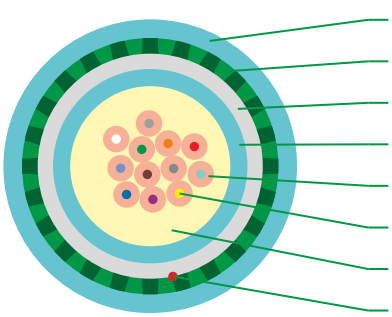
Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- The universal design is suited for use in most network arenas, including backbone, access and distribution..
- Quick fiber preparation ready for installation.
- Installation within ducts using blown on pulling techniques.



Typical Cross section of 12 Fiber



Cable Construction Details

- Tight Buffer Nylon.
- High Modulus, Aramid yarn as peripheral strength member.
- The Tight buffer unit consist of single fiber an easily strippable and flexible.
- LSZH inner sheath.
- Corrugated ECCS tape armour.
- LSZH outer sheath.

Technical Characteristics

FIBER COUNT	TIGHT BUFFER DIAMETER (µm)Nominal	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
				Installation	Operation	Installation	Operation	Installation	Operation
6	900	10.5	120	1200	700	10D	20D	-15° C to +60° C	-15° C to +70° C
12	900	11.5	140	1400	750	10D	20D	-15° C to +60° C	-15° C to +70° C
24	900	13.4	195	2400	1200	10D	20D	-15° C to +60° C	-15° C to +70° C
48	900	15.6	245	2700	1500	10D	20D	-15° C to +60° C	-15° C to +70° C

Fiber & Micro Module Colour Coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

For Fiber Count 12F We provide the above colour code
For Higher Fiber count we provide contrast dot marking of above colour code

Special Features

- Reduced diameter.
- Armour provides excellent crush performance.

Drum Length

2000/ 4000meters ± 5%

Mechanical Characteristics

Kink Resistance (mm) [IEC 60794-1-2-E10]	10 x D, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	Height 0.5 meters, Weight = 1 Kg, 3 Nos
Crush Resistance (N) [IEC 60794-1-2-E3]	1000 [100 X 100 mm] for 60 sec
Torsion Resistance [IEC 60794-1-2-E7]	10 Cycle, ± 180° Length under Test 2 meters
Repeated Bending [IEC 60794-1-2-E6]	25 Cycle, r = 20 X D, D = Cable Diameter

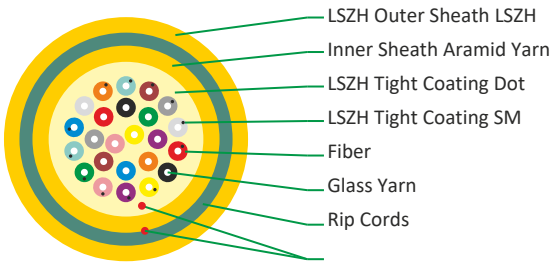
6F-48F DOUBLE SHEATH FAN OUT WITH GLASS YARN ARMOURED DIELECTRIC OPTICAL FIBER CABLE

Water blocked | Rodent resistant | Outdoor | Underground | Metro | Impact resistant | RoHS compliant

Applications

- These cables are specifically designed for indoor/outdoor applications.
- Mainly used in intra-building backbones.
- Routing between telecommunications rooms and as a riser cable in Multi-Storey buildings.

Typical Cross section of 24 Fibre



Cable Construction Details

- TLSZH Tight Buffer.
- High Modulus, Aramid yarn as strength member below inner sheath.
- LSZH Inner sheath, black.
- Peripheral Strength Member as Glass Yarn below outer sheath.
- LSZH Outer sheath, black.

Technical Characteristics

FIBER COUNT	TIGHT BUFFER DIAMETER (µm)Nominal	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
				Installation	Operation	Installation	Operation	Installation	Operation
6	900	9.2	94	2000	800	10D	15D	-10° C to +60° C	-20° C to +70° C
12	900	10.4	120	3000	1000	10D	15D	-10° C to +60° C	-20° C to +70° C
24	900	12.5	165	3000	1000	10D	15D	-10° C to +60° C	-20° C to +70° C
48	900	14.8	225	3000	1000	10D	15D	-10° C to +60° C	-20° C to +70° C

Fibre & Micro Module Colour Coding

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

- For Fiber Count 12F We provide the above colour code.
- For Higher Fiber count we provide contrast dot marking of above colour code

Special Features

- 900 Microns Tight buffered fibers support fast field installations.
- Easy jacket removal using standard tools.
- Reduce installation time and costs.
- Flexible and Fire retardant Inner & outer sheath with aramid yarns and Glass Yarn as tensile elements helps in easy installation in space constrained areas.
- LSZH sheath makes cable suitable for higher fire safety requirement.
- Small cable diameter & lightweight.
- Requires no grounding or bonding due to all-dielectric construction.

Mechanical Characteristics

Kink Resistance (mm)[IEC 60794-1-2-E10]	10 x D, D = Cable Diameter
Impact Resistance (Nm) [IEC 60794-1-2-E4]	1500 Impacts
Crush Resistance (N) [IEC 60794-1-2-E3]	1000 N [100 X 100 mm] for 60 sec
Water Penetration [IEC 60794-1-2-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours [on Inner Sheath]
Flame test [IEC 60332-1-2]	Complied

Drum Length

2000/ 4000meters ± 5%

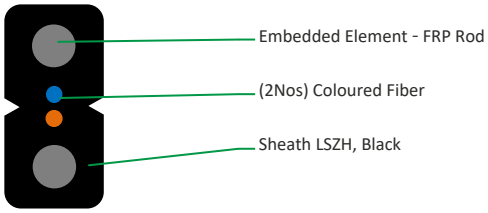
1F-4F FRP EMBEDDED FLAT DROP INDOOR OPTICAL FIBRE CABLE

Water blocked | Rodent resistant | Metro | RoHS compliant

Applications

Suitable for Indoor drop application

Typical Cross section



Cable Construction Details

- Up to 4 enhance low water peak single mode fibers in full compliance with ITU-T-G.652D (also available with G.657A1 & G.657A2)
- Outer sheath LSZH, Black
- FRP Embedded in outer sheath as strength member.

Technical Characteristics

FIBER COUNT	DIAMENTION (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
1	2.0 X 3.0	9.0	100	50	10D	20D	-10° C to +50° C	-40° C to +70° C
2	2.0 X 3.0	9.0	100	50	10D	20D	-10° C to +50° C	-40° C to +70° C
4	2.0 X 3.0	9.0	100	50	10D	20D	-10° C to +50° C	-40° C to +70° C

Fiber colour coding

Without ring mark

Blue | Orange | Green | Brown

Special Features

- Completely dielectric cable/ non metallic cable immune to electromagnetic interferences.
- Small size and Diamention for easy to strip.
- Easy access to the fibers.
- Quick cable entry & easy to peel.
- Low insertion and back reflection loss.
- Good durability.
- High temprature stability.
- Clean, gel free, Dry design

Mechanical Characteristics

Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	20 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	1 Nm, 1 Impacts
Crush Resistance (N [IEC 60794-1-21-E3A]	500 N/ (100 X 100 mm)
Torsion Resistance [IEC 60794-1-21-E7]	5 Cycle (± 180)°

Drum Length

1000/ 2000 meters ± 5%

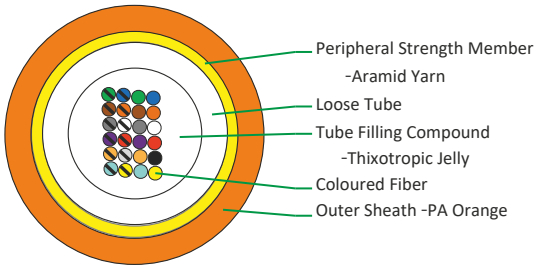
2F-24F SINGLE SHETH UNI-TUBE MICRO OPTICAL FIBER CABLE

Water blocked | Metro | RoHS compliant

Applications

- Suitable for Indoor application.
- Suitable for micro duct installation.

Typical Cross section of 24 Fiber



Cable Construction Details

- 1.Up to 24 enhance low water peak single mode fibers in full compliance with ITU-T-G.652D (also available with G.657A1 & G.657A2)
- Loose buffer tubes fully filled with Thixotropic Jelly & Fibers.
- Aramid yarn as flexible strength member.
- Outer sheath, Nylon Orange (Also available with HDPE)

Technical Characteristics

FIBER COUNT	DIAMETER (mm) Nominal	WEIGHT (Kg./Km) Nominal	TENSILE STRENGTH (N) Installation	TENSILE STRENGTH (N) Operation	BENDING RADIUS (mm) Installation	BENDING RADIUS (mm) Operation	TEMPERATURE RANGE (IEC 60794-1-2-F1) Installation	TEMPERATURE RANGE (IEC 60794-1-2-F1) Operation
With Nylon Sheath								
2F–12F	2.5	6.0	250 N	100 N	10D	20D	-10° C to +50° C	-40° C to +70° C
24F	3.5	11.0	250 N	100 N	10D	20D	-10° C to +50° C	-40° C to +70° C
With HDPE Sheath								
2F–12F	3.5	10.0	300 N	N 150 N	10D	20D	-10° C to +50° C	-40° C to +70° C
24F	4.0	13.0	300 N	150 N	10D	20D	-10° C to +50° C	-40° C to +70° C
Nylon Sheath With 200 Micron (ITU-T G.657A1 & G.657A2)								
2F–12F	2.5	10.0	100	50 N	10D	20D	-10° C to +50° C	-20° C to +70° C

Fiber Color Coding Without ring mark

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

Fiber Color Coding With ring mark

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

More than 12F We provide Black ring mark over colored fiber

Special Features

- Completely dielectric cable/ non metallic cable immune to electromagnetic interferences.

Drum Length

2000/ 4000 meters ± 5%

Mechanical Characteristics

Cable Bending Radius (mm) [IEC 60794-1-21-E11 A & B]	20 X D, D= Cable diameter
Impact Resistance (Nm) [IEC 60794-1-21-E4]	1 Nm, 1 Impacts
Crush Resistance (N) [IEC 60794-1-21-E3A]	100 N/ (100 X 100 mm)
Torsion Resistance [IEC 60794-1-21-E7]	2 Cycle (± 180)°

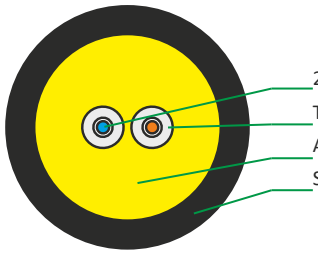
2F-48F FANOUT TIGHT BUFFER UNARMOURED OPTICAL FIBER CABLE

Indoor | Metro | Flame resistant | RoHS compliant

Applications

- Rugged multi fiber cross connect
- Intra building backbone
- Fibre backbone to communication closets

Typical Cross Section of 2F



Cable Construction Details

- Upto 48 Fiber of Single mode fiber in full compliance with ITU-T G652D (also available with G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fiber)
- Aramid Yarns as Strength Member
- PA-12 / LSZH tight coating on Fiber
- LSZH Compound for outer sheathing

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
UPTO 6F	5.0	25	500	300	15D	20D	-10° to +70° C	-40° to +70° C
8/12F	6.8	32	500	300	15D	20D	-10° to +70° C	-40° to +70° C
36/48F	16.5	215	2000	1000	15D	20D	-10° to +70° C	-40° to +70° C

Color Coding - Fiber

Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Voilet | Pink | Aqua

* For Fiber count more than 12F, bundles in multiple of 9/12F will be formed with color identification binder (Blue, Orange, Green & Brown)

Special Features

- Tight buffer & jacket are available in variety of colours.
- Easy access to the fibers
- Quick Cable Entry

Mechanical Characteristics

Torsion Resistance [IEC 60794-1-2-E7]	2 Cycle (± 360°) 1 Kg Weight, L= 2 Mtr
Crush Resistance [IEC 60794-1-2-E3]	1000 N (100 X 100 mm) for 600 sec

Drum Length

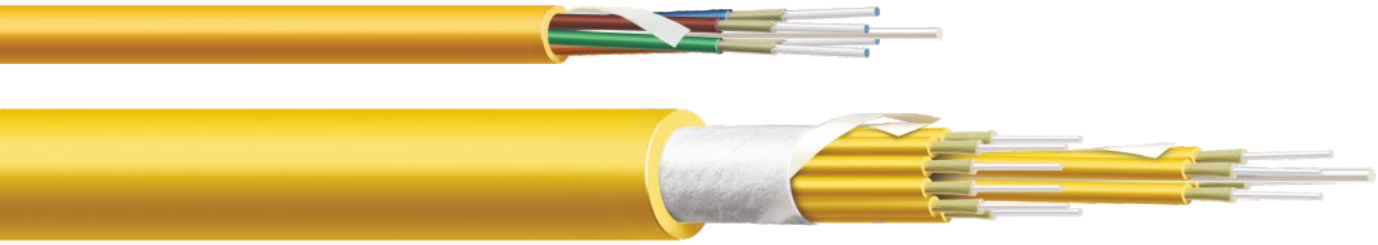
1000 meters ± 10%

2F-16F BREAKOUT TIGHT BUFFER UNARMOURED OPTICAL FIBER CABLE

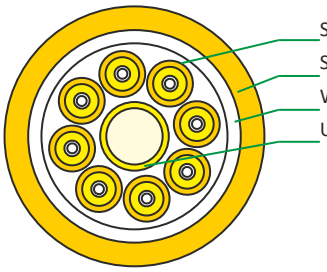
Indoor | Metro | Flame resistant | RoHS compliant

Applications

- Rugged multi fiber cross connect
- Intra building backbone
- Fiber backbone to communication closets



Typical Cross Section of 8F



Cable Construction Details

- 4/6/8/12/16 Fiber of Single mode fiber in full compliance with ITU-T G652D (also available with G657 SM Fiber and OM1 / OM2 / OM3 & OM4 MM Fibre)
- FRP and Aramid Yarns as Strength Member
- PA-12 tight coating on Fiber
- LSZH Compound for sheathing for simplex subunits & outer sheath of cable

FIBER COUNT	DIAMETER (mm)	WEIGHT (Kg./Km)	TENSILE STRENGTH (N)		BENDING RADIUS (mm)		TEMPERATURE RANGE (IEC 60794-1-2-F1)	
	Nominal	Nominal	Installation	Operation	Installation	Operation	Installation	Operation
4F	8.0	60	800	400	15D	20D	-20° to +70° C	-40° to +70° C
6F	9.0	79	800	400	15D	20D	-20° to +70° C	-40° to +70° C
8F	10.2	95	800	400	15D	20D	-20° to +70° C	-40° to +70° C
12F	12.0	120	800	400	15D	20D	-20° to +70° C	-40° to +70° C
16F	13.5	160	800	400	15D	20D	-20° to +70° C	-40° to +70° C

Special Features

- Individual cores are printed at every 200 mm for identification
- Tight buffer & simplex jacket are available in variety of colours.
- Easy access to the fibers
- Quick Cable Entry

Mechanical Characteristics

Torsion Resistance [IEC 60794-1-2-E7]	2 Cycle (± 360°) 1 Kg Weight, L= 2 Mtr
Crush Resistance [IEC 60794-1-2-E3]	1000 N (100 X 100 mm) for 60 sec
Kink Resistance [IEC 60794-1-2-E10]	15 x D, D = Cable D

Drum Length

1000 meters ± 10%

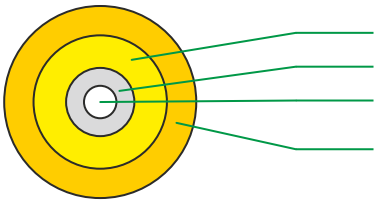
INTERCONNECT CABLES

Indoor Metro Flame resistant RoHS compliant

Applications

- Communication racks and wiring closets, walls, ceilings, floor ducts, etc
- In the final connection to terminal devices such as workstation and computer terminals for high speed voice, video, data, and FTTx applications
- Short run office & computer room cabling
- Patch cords, Pigtails & Jumpers

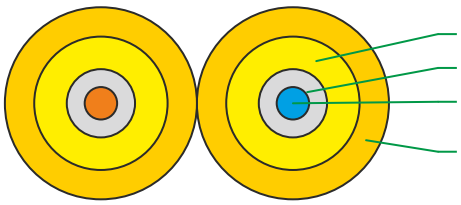
Typical Cross Section of Simplex



Cable Construction Details - Simplex

A single optical fiber is tight buffered and surrounded by aramid yarn strength member and jacketed with riser or plenum or LSZH grade jacketing to 2.0/3.0 mm diameter.

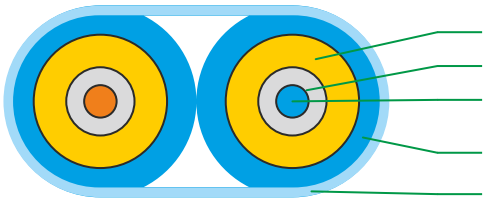
Typical Cross Section of Duplex



Cable Construction Details - Duplex

Two Simplex cables 2.0/3.0 mm are joined as a figure-8 design

Typical Cross Section of Flat Twin



Cable Construction Details - Flat Twin

Duplex Zip cable (2.0/3.0 mm) is jacketed with riser, plenum or LSZH grade jacketing.

Drum Length

1000/ 2000 meters ± 5%

Copper Telecommunication Cables

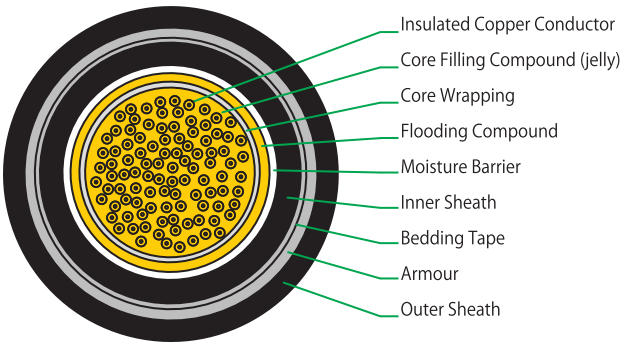
FOAM SKIN / SOLID PE INSULATED JELLY FILLED TELEPHONE CABLE

Outdoor Underground RoHS compliant

Applications:

- Local distribution networks - Primary & Secondary
- Junction between exchanges

Typical Cross section for Armoured Cable



Features:

- Armoured & Unarmoured construction
- Availability of standard conductor sizes ranging from 0.4 mm to 0.9 mm diameter.
- Available in sizes up to 2400 pairs
- Suitable for installation in ducts
- Direct Burial application for armoured cable

Technical Details

Conductor Diameter	Conductor Resistance at 20°C (Solid or Foam Skin Cable)	Attenuation at 150KHz.
0.40 mm	135 ± 8 Ω/Km	12.00 dB/Km (max.avg.)
0.50 mm	86 ± 6 Ω/Km	8.25 dB/Km (max. avg.)
0.63 mm	58 ± 4 Ω/Km	6.30 dB/Km (max. avg.)
0.90 mm	28 ± 2 Ω/Km	4.40 dB/Km (max. avg.)

Mutual Capacitance	Capacitance Unbalance	
52 +/- 3 nF/Km (avg.)	Pair to Pair	Pair to Earth
52 +/- 4.5 nF/Km	50 pF/Km (Max. Avg.)	750 pF/Km (max. avg.)
(individual)	200 pF/Km (Max.)	3000 pF/Km (max.)

Insulation Resistance : 5000 mega ohms / Km (Min.)	
ELFEXT :55 dB/Km (min) at 150 KHz	NEXT : 55 dB (min.) at 150 KHz.
67.8 dB/Km (RMS) at 150 KHz.	

Cable Construction Details

Conductor — Conductor - Each conductor consists of a round wire of annealed high conductivity copper.

Insulation — Each conductor is insulated with Foam Skin / Solid PE insulation. Foam Skin insulation consists of an extruded inner layer of uncoloured foam, covered by an extruded outer layer of coloured skin with required colours to meet the specification. For Solid insulation each conductor is insulated with Solid medium/high density polyethylene insulation.

Twinning — Two insulated conductors are twisted with uniform lay to form a pair. The length of the lay of the pairs is so choses that the cross talk is minimum.

Units & Super Units — No's of twisted pairs are laid up to form a group which constitutes a unit.

Stranding — Twisted pairs/ super units are stranded to form a cable core.

Filling — The cable core is fully filled with water resistant compound which is compatible with the polythene insulation of the conductors.

Core Wrapping & Screening — The filled cable core is wrapped with at least one helical or longitudinal plastic tape. Thereafter one aluminium tape, coated with copolymer on both sides is applied longitudinally over the cable core with a specified overlap.

Sheathing — The screened cable core is sheathed with black polythene compound grade 03C as per BS:6234.

Bedding tape — If the cable is required to be armoured, two helical lapping of polythene bedding tape is applied over the polythene sheath.

Armouring — The cable is then armoured with two applications of galvanized steel tape each applied helically with a specified gap. The second tape covers the gap left by the first tape.

Jacketing — The armoured cable is finally jacketed with black polythene compound grade 03C of BS:6234.

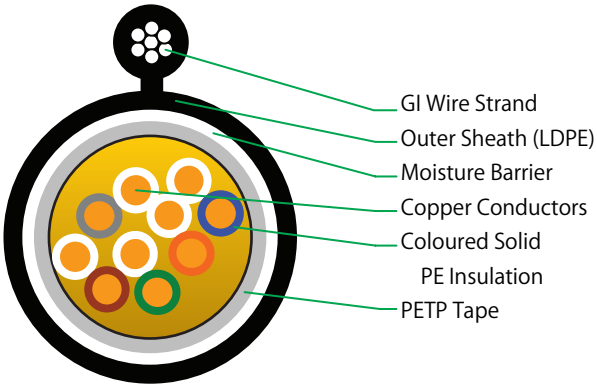
SELF SUPPORTING AERIAL (FIGURE 8 TYPE) TELEPHONE CABLE

Outdoor Aerial RoHS compliant

Applications:

- Suitable for Aerial Installation
- Local distribution networks - Secondary networks

Typical Cross section for Armoured Cable



Features:

- Availability of standard conductor sizes of 0.4, 0.5, 0.6 & 0.9mm diameter
- Figure-8 construction
- Availability upto 200 pairs
- Suitable for installation in Hilly areas/areas where digging is not possible

Technical Details

Conductor Diameter	Conductor Resistance at 20°C (Solid or Foam Skin Cable)	Attenuation at 105KHz.
0.40 mm	135 ± 8 Ω/Km	12.00 dB/Km (max.avg.)
0.50 mm	86 ± 6 Ω/Km	8.25 dB/Km (max. avg.)
0.63 mm	58 ± 4 Ω/Km	6.30 dB/Km (max. avg.)
0.90 mm	28 ± 2 Ω/Km	4.40 dB/Km (max. avg.)

Mutual Capacitance	Capacitance Unbalance	
52 ± 3 nF/Km (avg.)	Pair to Pair	Pair to Earth
52 ± 4.5 nF/Km (individual)	50 pF/Km (Max. Avg.) 200 pF/Km (Max.)	750 pF/Km (max. avg.) 3000 pF/Km (max.)

Insulation Resistance : 2500 mega ohms / Km (Min).	
ELXT : 55 dB/Km (min)at 150 KHz	NEXT : 55 dB (min.) at 150 Khz.
67.8 dB/Km (RMS) at 150 KHz.	

Cable Construction Details

Conductor Each conductor consists of a round wire of annealed high conductivity copper.

Insulation Each conductor is insulated with solid medium/high density polyethylene insulation.

Twinning Two insulated conductors are twisted with uniform lay to form a pair. The length of the lay of the pairs is so chosen that the cross-talk is minimum.

Units & Super Units 10 or 20 No's of twisted pairs are laid up to form a group which constitutes a unit. Each unit should have an overlapping for color ID. In case of cables having more than 100 pairs, 5 units of 10 pairs or 20 pairs are laid up to constitute 50 or 100 pairs of super units respectively.

Stranding For cable upto 20 pairs the required number of twisted pairs are stranded to form a cable core. For cables having 50 and 100 pairs, 5 numbers of 10 pair or 20 pair units are stranded to form 50 and 100 pair cables respectively. For cables having higher than 100 pairs, required number of super units are stranded to form a cable core.

Core Wrapping & Screening The cable core is wrapped with at least one helical or longitudional plastic tape. Thereafter one aluminium tape ,coated with co-polymer on both sides is applied longitudinally over the cable core with a specified overlap. The tape is sealed and bonded to the inner surface of the polythene sheath.

Suspension Wire / Strand A Suspension Wire / Strand is provided.

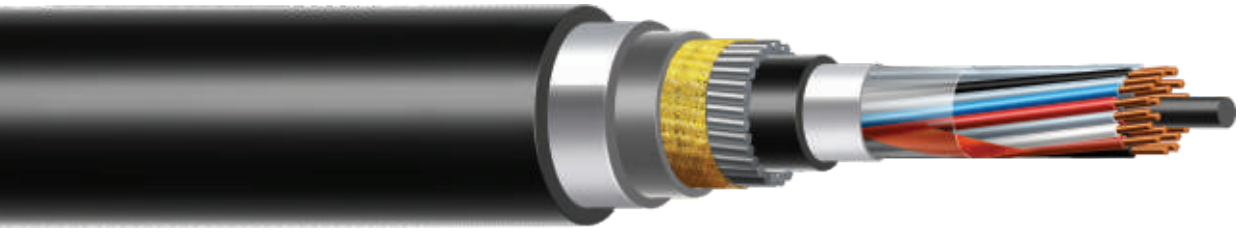
Sheathing The screened cable core along with suspension wire as an integral part with the cable is sheathed with black polythene compound to form figure-8

UNDERGROUND JELLY FILLED QUAD CABLES

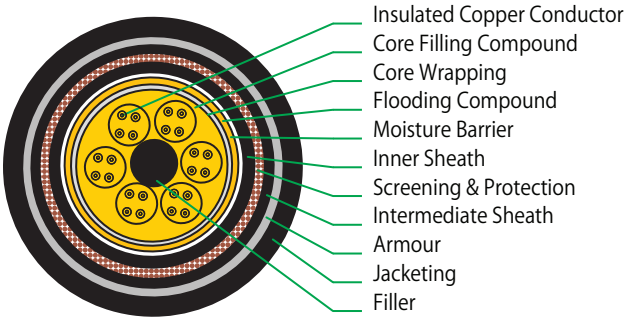
Outdoor Underground RoHS compliant

Applications

- Axle counter
- Signalling



Typical Cross section for Armoured Cable



Technical Details

Conductor Diameter	Conductor Resistance at 20°C	Attenuation at 20°C
0.90mm	28 (Each Core) Ω/Km (Max) 56 (loop) Ω/Km (Max)	4.40 dB/Km (Max. Avg.) at 150KHz 2 dB/Km (Max. Avg.)at 300-3400 Hz
1.4mm	11.6 (Each Core) Ω/Km (Max) 23.2 (loop) Ω/Km (Max)	0.3 dB/Km (Max. Avg.) at 0.8KHz 0.8 dB/Km (Max. Avg.) at 5KHz 1.3 dB/Km (Max. Avg.) at 21KHz 2.5 dB/Km (Max. Avg.) at 150KHz

Mutual Capacitanc	Capacitance Unbalance (800 Hz to 1000 Hz)	
50 ± 2.5 nF/ Km (avg.) 50 ±6 nF/Km (individual)	Pair to Pair 300 pF/Km (max.)	Pair to Earth 1500 pF/Km (max. avg.)

Insulation Resistance 5000 mega Ωs / Km (min.)

0.90 mm	ELFEXT : 150 KHz 55 dB/Km Ind. (Min.) 67.8 dB/Km (RMS) (Min.)	NEXT : 55 dB (min.) at 150 KHz
1.4 mm	ELFEXT : at 0.8KHz, 5KHz 21 KHz & 150 KHz 60.0 dB/Km Ind. (Min.) 70.8 dB/Km (RMS) (Min.)	NEXT : 55 dB (min.) at 0.8 KHz, 5 KHz, 21 KHz & 150 KHz

Reduction Factor (Field intensity of 50v to 450v) : 0.10 (Max)
Characteristic Impedance (Ω)

0.90 mm	470 +/- 15% Ω at 0.8KHz 195 +/- 15% Ω at 5.0 KHz
1.4 mm	310 +/- 15% Ω at 0.8KHz 150 +/- 15% Ω at 5.0 KHz 110 +/- 15% Ω at 21.0 KHz 100 +/- 15% Ω at 150.0 KHz

Color Coding for Quad :

No1 - White, Orange, Red , Green No2 - White, Blue, Red , Green
No3 - White, Brown, Red , Green No4 - White, Green, Red , Green
No5 - White, Yellow, Red , Green No6 - White, Black, Red , Green

Cable Construction Details

Conductor	Round wire of annealed high conductivity copper
Insulation	Each conductor is insulated with solid PE
Quadding	Four insulated conductors stranded to form a star quad.
Laying Up	The quads are assembled to form a symmetrical core with a right hand lay. Polyethylene strings of required diameter may be used as fillers, if necessary.
Filling & core wrapping	The cable core is fully filled with water -resistant compound and wrapped with polyethylene .
Moisture Barrier	Aluminium tape coated with co-polymer on both sides is applied longitudinally over the cable core with a specified overlap.
Sheathing	The screened cable core is sheathed with black polythene compound as per BS:6234.
Screening & protection	The cable core with inner sheath is surrounded by a reasonably close fitted screen of Aluminium in the form of wires/ strips . The aluminium screen is wrapped with a single layer of woven tape impregnated with Barium chromate with overlap.
Intermediate sheath	Further protection of screening is provided by extruded PVC/PE sheath over screening.
Armouring	Armouring with two applications of Galvanized steel tape each applied helically with a specified gap.
Jacketing	The armoured cable is finally jacketed with black PVC/PE compound.

Features:

- Suitable for Direct burial application
- Armoured construction
- Availability of standard conductor sizes of 0.9 mm & 1.4 mm diameter.
- Available in 4 and 6 quads.
- Suitable for use on AC systems (earthed or unearthed) for rated voltage up to and including 1100 volts.
- These cables may be used on DC systems for rated voltages up to and including 1500 volts on earth.

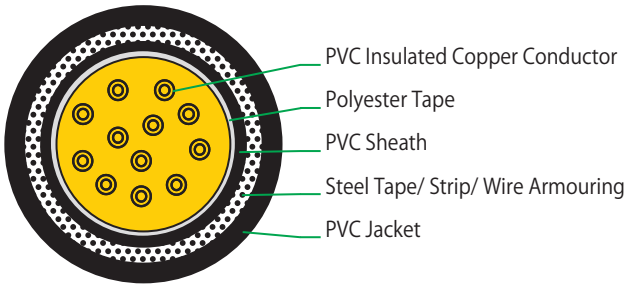
SIGNALING CABLES

Outdoor Underground RoHS compliant

Applications

- Railway Signalling

Typical Cross section for Armoured Cable



Technical Details

Nominal Cross Sectional Area	No. of Wires in Conductors	Nom. Dia of Wire	Max. Resistance at 20°C		Nom. Thickness of Insualtion	
			Single Core	Multi Core	Single Core	Multi Core
Sqmm	No(s)	mm	Ω/Km	Ω/Km	mm	mm
1.0	1	1.13	17.689	18.04	1.5	0.8
1.5	1	1.4	11.54	11.77	1.5	0.8
2.5	1	1.80	6.978	7.118	1.5	0.9
2.5	3	1.06	6.843	6.980	1.5	0.9
4	1	2.24	4.506	4.596	1.5	1.0
4	7	0.85	4.591	4.683	1.5	1.0
6	1	2.8	2.884	2.942	1.5	1.0
10	7	1.4	1.660	1.693	1.5	1.0
16	7	1.70	1.124	1.149	1.5	1.0
25	7	2.24	0.6484	0.6614	1.5	1.2
35	7	2.50	0.5205	0.5309	1.5	1.2
50	19	1.8	0.3706	0.3780	1.5	1.4

Insulation Resistance (M-Ω/Km) (Dry) (500 V DC for 1 Min. at 50° C)	10 M-Ω/Km upto 2.5 mm^2 Conductor 5 M-Ω/Km More than 2.5 mm^2 Conductor
Insulation Resistance (M-Ω/Km) (Wet) (500 V DC for 1 Min. at 50° C	7.5 M-Ω/Km upto 2.5 mm^2 Conductor 5 M-Ω/Km More than 2.5 mm^2 Conductor
HV Test at Room Temp.	4 KV AC (rms) or 12 KV DC (for 5 Min.)

Cable Construction Details

Conductor Each conductor shall consist of a solid round/stranded wire(s) of annealed high conductivity copper, smoothly drawn, nominally circular in section , uniform in quality and resistance and free from defects.

Insulation Insulation shall be of PVC Compound conforming to requirements of Type-A compound of IS 5831:1984. Insulation color shall be as per customer specification.

Core Formation The insulated cores shall be laid up together with suitable lay. The outer most layer shall have right hand lay and the successive layers shall be laid with opposite lay. A polyester tape of suitable thickness shall be helically applied normally in cables with double steel tape with suitable overlap.

Inner Sheath The inner sheath shall be of PVC Compound conforming to requirements of Type- ST1 as per IS 5831:1984.

Armouring Armouring shall consist of the either Galvanised Round Wire strip/Double Steel Tape.

Jacket The outer sheath shall be of PVC Compound conforming to requirements of Type- ST1 as per IS 5831:1984.

Features:

- Availability of conductor sizes ranging from 1.13 mm to 2.80 mm diameter. Cable size ranging from 2 core to 100 cores with 1.0 Sqmm to 50 Sqmm.
- Suitable for use on AC systems (Earthed or unearthed) for rated voltage upto 1100 volts
- Suitable for use on DC systems for rated voltage upto 1500 volts

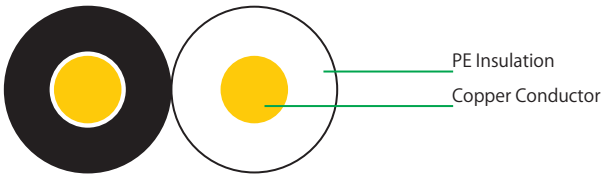
JUMPER WIRE

Indoor Outdoor RoHS compliant

Applications

- Indoor Telephone wiring & Signal distribution

Typical Cross section for Armoured Cable



Cable Construction Details

Conductor Each conductor shall consist of a solid round wire of annealed high conductivity copper, smoothly drawn, nominally circular in section , uniform in quality and resistance and free from defects. The quality of copper shall confirm to IEC-28 or IS-12444.

Insulation Each conductor shall be insulated with solid polyethylene.

Pairing Two Insulated conductors shall be twisted together with uniform lay to form a pair.

Electrical Parameters At 20°c

For 0.50 mm Jumper Wire

Parameter	Limit	Tol.	Remarks
Resistance (Ω/Km)	89	+/- 4	
Re. Unbalance %	Ind 2.5 Ω/Km (Max.)		
Insulation Resistance	Min 500 (Ω/Km)		For 1 Minutes with 250-500 V DC
Dielectric Strength	10KVDC		For 3 Seconds

For 0.65 mm Jumper Wire

Parameter	Limit	Tol.	Remarks
Resistance (Ω/Km)	62	+/- 4	
Re. Unbalance %	Ind 2.5O/Km (Max.)		
Insulation Resistance	Min 500 (Ω/Km)		For 1 Minutes with 250-500 V DC
Dielectric Strength	10KVDC		For 3 Seconds

Length & Tolerance :

500 Mtrs.(± 5 %)

Packing :

In Coils, wrapped with polyethylene sheets, packed in Cartons or Plastic Reels

Colour Code For Conductor Insulation(*)

Cond. Size Insulation	Colour 1st Wire(Tip)	Colour 2nd Ring	Dia Over
0.50 mm	Black	White	1.40 mm (Nom.)
0.60 mm	Black	White	1.10 mm (Nom.)

(*) or as desired by the customer

ELECTROPLATED TINNED COPPER WIRE

Applications

- Copper wire armouring & soldering power sectors
- Screening applications in telecom & signaling cables

Data Sheet

A) Electroplated Tinned Wires Suitable for Drawing to Fine Wire [UN-ANNEALED]

WIRE SIZE	PARAMETER	SPECIFIED VALUES	UOM
2.80 mm	Diameter (Mom)	2.80	mm
	Tin Coating (Min)	As per Requirement*	Microns
	Pershulphate Test	Should Pass	
WIRE SIZE	**PARAMETER**	**SPECIFIED VALUES**	**UOM**
1.60 mm	Diameter (Mom)	1.60	mm
	Tin Coating (Min)	As per Requirement*	Microns
	Pershulphate Test	Should Pass	

*Depends on the Tin Coating Thickness required at finely Drawn Copper Wire

Above Sizes Shall be packed in Returnable MS Baskets.

B) Drawn Tinned Copper [ANNEALED]

WIRE SIZE	PARAMETER	SPECIFIED VALUES	UOM
0.50 mm	Resistance (max)	91	Ω/Km
	Diameter (Nom)	0.492	mm
	Elongation (Min)	20	%
	Tin Coating (Min)	1	Microns
	Pershulphate Test	Should Pass	
WIRE SIZE	**PARAMETER**	**SPECIFIED VALUES**	**UOM**
0.40 mm	Resistance (max)	142	Ω/Km
	Diameter (Nom)	0.392	mm
	Elongation (Min)	18	%
	Tin Coating (Min)	1	Microns
	Pershulphate Test	Should Pass	

Above Sizes Shall be packed in Returnable 630 mm MS Reels.

Pershulphate Test : Shall be done as per IS 10810 Part 4 : 1994

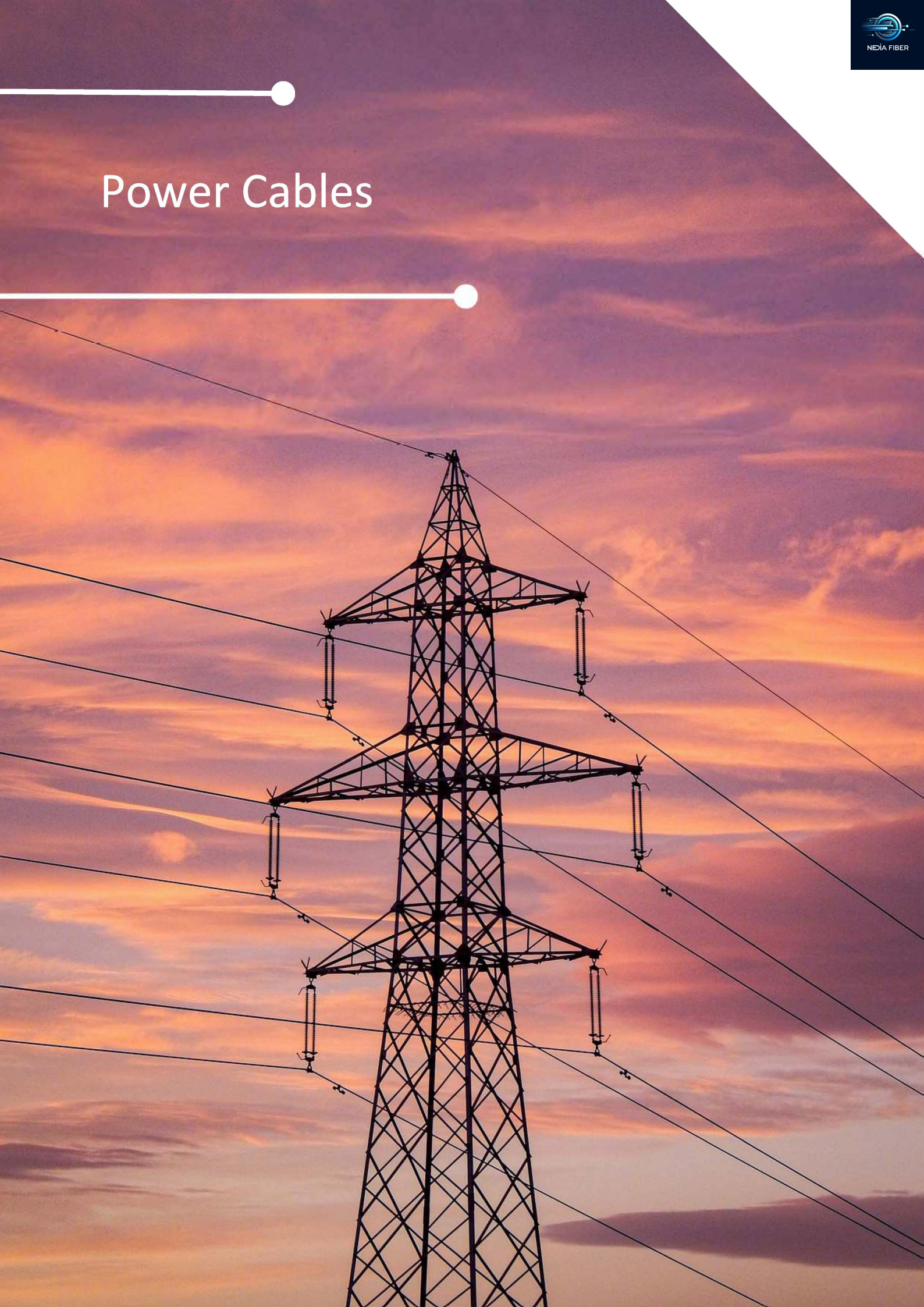
We can make as per customer specifications

Note: Tinned copper wire of other specific wire sizes also available on request.

Advantages of Electro-tinned Wire Over Hot Dip Tinned Wire

- Uniform & Controlled Tin coating
- Better tin bonding with base metal i.e. copper
- Uniform wire elongation
- Re-drawable to finer sizes offering flexibility to customer

Power Cables



L.T. AERIAL BUNCHED CABLE

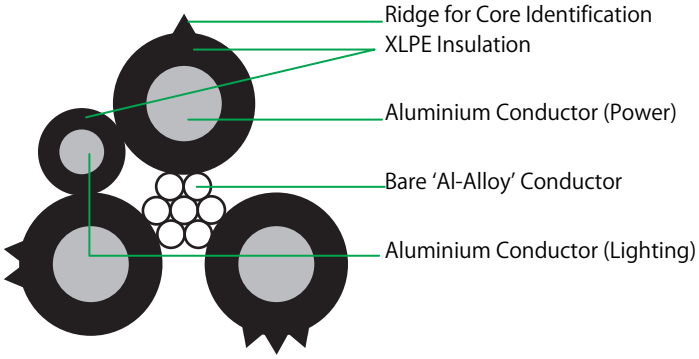
Outdoor Aerial RoHS compliant

Applications:

Aerial Bunched Cables are suitable for the following fuctions:

- In power theft prone areas.
- As replacement of bare lines in rural areas, in woods, other localities & narrow street where space is limited.
- As replacement of bare lines where reliability of supply is of prime importance and where high degree of stability of supply voltage is of importance.
- In hilly terrains where cost of erection of overhead lines of under ground cable becomes very high.
- Where space is limited like those in densely populated area, dense forests.
- As reinforcement of existing system without increasing voltage.
- For temporary supplies.

Typical Cross section for Armoured Cable



Cable Construction Details

Conductor The phase conductor and neutral/street lighting conductors is of H2 or H4 grade aluminium complying with the requirements of IS 8130:1984 and conforms to flexibility class 2 of IS 8130:1984. The size of the street lighting conductor is16 mm^2.

Messenger (Neutral Conductor or Otherwise) The conductor is heat treated aluminium-magnesium-silicon alloy wire conforming to IS 398 (Part 4):1979. It is either stranded circular or compacted circular type and has minimum 7 strands with smooth surface.

Insulation The conductor is insulated with crosslinked polyethylene applied by extrusion. The insulation so applied fits closely on the conductor and it is possible to remove without damaging the conductor. The color of insulation is black, offering UV protection.

Core Identification The phase conductors is provided with one, two or three 'ridges' and outer neutral insulated conductor, if provided, has four 'ridges' for quick identification. The street lighting conductor and messenger conductor (if insulated) does not have any identification mark.

Assembly (Laying up) The required number of insulated phase conductors, one insulated neutral conductor (if required) and a street lighting conductor (if required) is twisted around the bare (or insulated) as required messenger conductor without fillers with a lay not exceeding 35times the diameter of the insulated phase conductor. The direction of lay is right hand.

Outdoor Aerial RoHS compliant

Technical Particulars (as Per Is: 14255 - 1995)

Phase Conductor (Aluminium) As per IS 8130 : 1984			Street Lighting Conductor (Aluminium) As per IS 8130 : 1984			Messenger Conductor Aluminium Alloy As per IS 398 (Part-4) : 1979		
Nom. Area	Max. D.C. Conductor Resistance at 20°C	Nom. Thickness of Insulation XLPE/PE	Nom. Area	Max. D.C. Conductor Resistance at 20°C	Nom. Thickness of Insulation XLPE/P	Nom. Area	Max. D.C. Conductor Resistance at 20°C	Min. Breaking Load
Sqmm	Ω/Km	mm	Sqmm	Ω/Km	mm	Sqmm	Ω/Km	KN
16	1.910	1.2	16	1.91	1.2	25	1.380	7.0
25	1.200	1.2	16	1.91	1.2	25	1.380	7.0
35	0.868	1.2	16	1.91	1.2	25	1.380	7.0
50	0.641	1.5	16	1.91	1.2	35	0.986	9.8
70	0.443	1.5	16	1.91	1.2	50	0.689	14.0
95	0.320	1.5	16	1.91	1.2	70	0.492	19.7
120	0.253	1.5	16	1.91	1.2	95	0.357	26.5

Composition & Designation Of L.t. Aerial Bunched Cables

Designation	Complete Bunched Cable	
	Approx. Overall Dia mm	Approx. Total Mass Kg/Km
3C x 16 mm^2 + 25 mm^2 + 16 mm^2	20	320
3C x 25 mm^2 + 25 mm^2 + 16 mm^2	23	410
3C x 35 mm^2 + 25 mm^2 + 16 mm^2	25	500
3C x 50 mm^2 + 35 mm^2 + 16 mm^2	30	690
3C x 70 mm^2 + 50 mm^2 + 16 mm^2	34	915
3C x 95 mm^2 + 70 mm^2 + 16 mm^2	39	1195
3C x 120 mm^2 + 70 mm^2 + 16 mm^2	44	1485

Notes

We can manufacture Aerial Bunched cable as per customer's requirement meeting the National/ International specifications.

Advantages

Aerial Bunched Cables Lines have very high reliability in maintaining services because conductors are insulated with the best dielectric. The benefits of using this line are:

- Safest system because phase conductors are insulated, no risk of danger of accidental touching live conductor.
- Less fault rage on account of good protection against line and ground fault by high winds or falling trees or bird especially in hilly areas & forests as encountered in rural distribution networks.
- High insulation resistance to earth in all seasons and polluted atmospheres. Negligible leakage currents and low losses.
- Multiple circuits of power and telephone cables could be strung in the same set of poles or any other supports like walls etc.
- Better adaptability to run concurrently with existing over-head bare conductor system without any interference.
- High capacitance and low inductance leading to low impedance of lines.
- Total lines costs are reduced and maintenance is very easy.
- Insulation of conductors also helps in preventing corrosion of the conductor.
- Cores being insulated, the chances of power thefts are eliminated.
- These are cheaper than underground power cables.
- Life of Transformers increased as the supply interruptions are minimized.

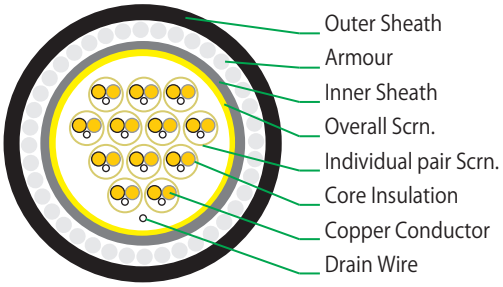
INSTRUMENTATION CABLE

Generally to BS:5308 Part-1 (Polyethylene Insulation)

Power Cable

RoHS compliant

Typical Cross section for Armoured Cable



Cable Construction Details

Operating Voltage:	300/500V
Size:	Available in following no of pairs : 1, 2 (1 Quad), 5, 10, 15, 20, 30 and 50 Pairs
Conductor:	Solid/Stranded/Flexible Annealed Bare/Tinned copper class 1/2/5 to BS:6360
Insulation:	Conductors are insulated with solid
& Pairing/ Quading	Polyethylene Type 03 as per BS:6234, uniformly twisted together to form a pair / quad with a max. lay length of 100 mm, and colour coded for identification.
Colour Code:	As per BS:5308 Part-1
Pair shield: (for individual pair Shielded cables only)	Each twisted pair shielded with aluminium backed polyester tape and a tinned copper drain wire of size 0.5mm^2 .
Assembly	Twister pairs are cabled with non-hygroscopic fillers if necessary
Overall shield:	The entire assembly is shielded with aluminium polyester tape and a tinned copper drain wire of size 0.5mm^2.
Bedding: (applicable for Type 2 Cables)	Extruded Black Polyethylene Type 2 C or 03 as per BS:6234.
Wire Armouring: (applicable for Type 2 Cables)	A serving of round galvanized steel wires as per BS:1442 is applied.
Sheath:	Type - 1 & 2 Extruded Black PVC Type TM1 of BS:6746.

Resistance, as per BS 6360

Cross Sectional Area	Maximum Resistance at 20°C/Km					
	Class - 1 Solid Copper Conductor		Class - 2 Stranded Copper Conductor		Class - 5 Flexible Copper Conductor	
Sqmm	Plain	Tinned	Plain	Tinned	Plain	Tinned
0.50	36.0	36.7	36.0	36.7	39.0	40.1
0.75	24.5	24.8	24.5	24.8	26.0	26.7
1.00	18.1	18.2	18.1	18.2	19.5	20.0
1.50	12.1	12.2	12.1	12.2	13.3	13.7

Max. Mutual Capacitance

Cross Sectional Area	Requirment as per BS:5308 Part - 1		
	Cable without screen	Cables with only collective screen (except 1 & 2 pair)	1 Pair & 2 Pair with collective screen & all cables with individual pair screen
Sqmm	(nF/Km)	(nF/Km)	(nF/Km)
0.5	75	75	115
1.0	75	75	115
1.5	85	85	120

L/R ratio (Max):

1.5 Sqmm	-	40 Micro Henry/Ω
0.5/0.75/1.0 Sqmm	-	25 Micro Henry/Ω

Note :

1. Type 1 – Unarmoured,
2. Type 2 – Armoured
3. Other conductor Sizes and Types, Alternative Colour Codes, Higher Pair Count and Sheath Material – FR/FRLS/Zero Halogen compounds are available on request.
4. As an alternate, armoured cables shall be supplied with Flat Strip/ Double Steel Tape/ Wire Braided as per customer requirement.

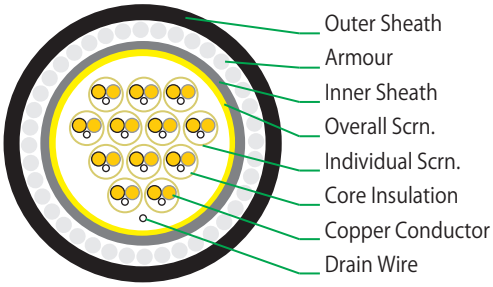
INSTRUMENTATION CABLE

Generally to BS:5308 Part-2 (PVC Insulation)

Power Cable

RoHS compliant

Typical Cross section for Armoured Cable



Cable Construction Details

Operating Voltage: 300/500V

Size: Available in following no of pairs : 1, 2 (1 Quad), 5, 10, 15, 20, 30 and 50 Pairs

Conductor: Solid/Stranded/Flexible Annealed Bare/Tinned copper class 1/2/5 to BS:6360

Insulation: Conductors are insulated with solid

& Pairing/ Quading Polyethylene Type 03 as per BS:6234, uniformly twisted together to form a pair / quad with a max. lay length of 100 mm, and colour coded for identification.

Colour Code: As per BS:5308 Part-1

Pair shield: (for individual pair Shielded cables only) Each twisted pair shielded with aluminium backed polyester tape and a tinned copper drain wire of size 0.5mm^2 .

Assembly Twister pairs are cabled with non-hygroscopic fillers if necessary

Overall shield: The entire assembly is shielded with aluminium polyester tape and a tinned copper drain wire of size 0.5mm^2.

Bedding: (applicable for Type 2 Cables) Extruded Black Polyethylene Type 2 C or 03 as per BS:6234.

Wire Armouring: (applicable for Type 2 Cables) A serving of round galvanized steel wires as per BS:1442 is applied.

Sheath: Type - 1 & 2 Extruded Black PVC Type TM1 of BS:6746.

Resistance, as per BS 6360

Cross Sectional Area	Maximum Resistance at 20°C/Km					
	Class - 1 Solid Copper Conductor		Class - 2 Stranded Copper Conductor		Class - 5 Flexible Copper Conductor	
Sqmm	Plain	Tinned	Plain	Tinned	Plain	Tinned
0.50	36.0	36.7	36.0	36.7	39.0	40.1
0.75	24.5	24.8	24.5	24.8	26.0	26.7
1.00	18.1	18.2	18.1	18.2	19.5	20.0
1.50	12.1	12.2	12.1	12.2	13.3	13.7

Max. Mutual Capacitance at 1 kHz.

Core to Core : 250 nF/Km

Core to Screen : 450 nF/Km

L/R ratio (Max):

1.5 Sqmm - 40 Micro Henry/Ω

0.5/0.75/1.0 Sqmm - 25 Micro Henry/Ω

Note :

1. Type 1 – Unarmoured,
2. Type 2 – Armoured
3. Other conductor Sizes and Types, Alternative Colour Codes, Higher Pair Count and Sheath Material – FR/FRLS/Zero Halogen compounds are available on request.
4. As an alternate, armoured cables shall be supplied with Flat Strip/ Double Steel Tape/ Wire Braided as per customer requirement.

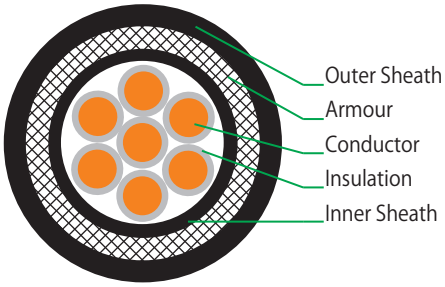
CONTROL CABLE

As per IS:1554 (Part-1):1988

Power Cable

RoHS compliant

Typical Cross section for Armoured Cable



1.1 KV 1.5/2.5 Sqmm (Solid) Multicore Unarmoured PVC Control Cables Conforming to IS : 1554 (Pt - I) - 1988

No. of Cores & Cross Sectional Area	Thickness of PVC Insulation (Nom.)	Thickness of PVC Inner Sheath (min.) Extruded	Thickness of PVC Outer Sheath (Nom.)	Approx. O.D.	Approx. Net Weight of Cable	Standard Delivery Length in	Current Rating	
							Direct in Ground	In Air/ Duct
No x mm2	mm	mm	mm	mm	Kg/Km	Mtrs	Amps.	Amps.
2 x 1.5	0.8	0.3	1.8	11.5	155	500/1000	23	20
3 x 1.5	0.8	0.3	1.8	12.0	177	500/1000	21	17
4 x 1.5	0.8	0.3	1.8	13.0	208	500/1000	21	17
5 x 1.5	0.8	0.3	1.8	14.0	243	500/1000	16	14
6 x 1.5	0.8	0.3	1.8	15.0	261	500/1000	15	13
7 x 1.5	0.8	0.3	1.8	15.0	271	500/1000	14	13
10 x 1.5	0.8	0.3	1.8	18.0	368	500/1000	13	11
12 x 1.5	0.8	0.3	1.8	18.5	416	500/1000	12	10
14 x 1.5	0.8	0.3	1.8	19.0	466	500/1000	11	10
16 x 1.5	0.8	0.3	1.8	20.0	521	500/1000	11	9
19 x 1.5	0.8	0.3	2.0	21.5	607	500/1000	10	9
24 x 1.5	0.8	0.3	2.0	24.5	749	500/1000	9	8
27 x 1.5	0.8	0.3	2.0	25.0	817	500/1000	9	8
30 x 1.5	0.8	0.3	2.0	26.0	890	500/1000	9	7
37 x 1.5	0.8	0.3	2.0	28.0	1058	500/1000	8	7
2 x 2.5	0.9	0.3	1.8	13.0	200	500/1000	32	27
3 x 2.5	0.9	0.3	1.8	13.5	234	500/1000	27	24
4 x 2.5	0.9	0.3	1.8	14.5	281	500/1000	27	24
5 x 2.5	0.9	0.3	1.8	15.5	331	500/1000	23	19
6 x 2.5	0.9	0.3	1.8	16.5	356	500/1000	21	18
7 x 2.5	0.9	0.3	1.8	16.5	374	500/1000	20	17
8 x 2.5	0.9	0.3	1.8	18.0	434	500/1000	19	16
9 x 2.5	0.9	0.3	1.8	19.0	492	500/1000	18	15
10 x 2.5	0.9	0.3	1.8	20.5	512	500/1000	18	15
12 x 2.5	0.9	0.3	2.0	21.5	602	500/1000	17	14
14 x 2.5	0.9	0.3	2.0	22.5	680	500/1000	16	14
16 x 2.5	0.9	0.3	2.0	23.5	764	500/1000	15	13
19 x 2.5	0.9	0.3	2.0	24.5	870	500/1000	14	12
24 x 2.5	0.9	0.3	2.0	28.5	1077	500/1000	13	11
27 x 2.5	0.9	0.3	2.0	29.0	1182	500/1000	12	10
30 x 2.5	0.9	0.3	2.0	30.0	1292	500/1000	12	10
37 x 2.5	0.9	0.4	2.2	32.5	1588	500/1000	11	9

Cable Construction Details

Voltage : These cables can be used on AC voltage up to & Including 1100 V or DC up to & including 1500 V.

Size : 1.5 Sq.mm. & 2.5 Sq.mm. upto 37 Cores

Conductor: Annealed Bare Electrolytic Copper/ Aluminum Conductor conforming to IS:8130:1984.

Insulation: Conductors are insulated with PVC Compound as per IS:5831:1984.

Colour of Cores: Cores are identified with a colour scheme as per IS:1554 (pt-1):1988 as under

- 2 Cores - Red & Black
- 3 Cores - Red, Yellow & Blue
- 3½ & 4 Cores - Red, Yellow, Blue & Black (Reduced Neutral Core in case of 3½ Core).
- 5 Cores - Red, Yellow, Blue, Black and Grey

In case of cable exceeding five cores, two adjacent (counting and direction cores) in each layer shall be colored Blue, Yellow and remaining cores grey, or identification by numbers printed over insulation as per IS:1554 (pt-1):1988

Laying of Cores: Cores are laid up with a suitable lay. The final layer direction shall be kept right hand lay.

Inner Sheath: The Inner Sheath is applied over laid up of cores by extrusion/wrapping of thermoplastic material.

Armouring: It is applied over inner sheath. It may consist of galvanized Round Steel wires or galvanized Flat Steel Strips conforming to IS 3975. Round Wire armouring is provided, where the calculated diameter under armour is 13.0 mm. Above this, armouring is either round wire/steel strip.

Outer Sheath: A final covering of PVC Compound, conforming to IS:5831:1984, is applied over Armouring in case of Armoured Cable or over Inner Sheath in case of Unarmoured cable, called as "Outer Sheath".

The Insulation, Inner Sheath or Outer Sheath can be HR PVC, FRLS PVC or FRHF Compound , depending upon their application.

Construction Variants

1. Solid / Stranded annealed copper conductor &Tinned / Bare
2. General Purpose / HR PVC insulation
3. Cores laid up (filled if needed)
4. FRLS / General Purpose PVC inner sheath
5. FRLS / General purpose PVC Outersheath

Max. Conductor D.C. Resistance at 20 Deg C - Conductor Size :

1.5 sq.mm - 12.1 Ω / km (Bare), 12.2 Ω / km (Tinned)
2.5 sq.mm - 7.41 Ω / km (Bare), 7.56 Ω / km (Tinned)

Power Cable

RoHS compliant

1.1 KV 1.5/2.5 Sqmm (Solid) Multicore Armoured PVC Control Cables
Conforming to IS : 1554 (Pt - I) - 1988

No. of Cores & Cross Sectional Area	Thickness of PVC Insulation (Nom.)	Thickness of PVC Inner Sheath (min.) Extruded	Round Wire Dia	Flat Strip	Thickness of PVC Outer Sheath (Min.)	Approx. O.D.	Approx. Net Weight of Cable	Standard Delivery Length in	Current Rating	
									Direct in Ground	In Air/ Duct
No x mm2	mm	mm	mm	mm	mm	Mtrs	Kg/Km	Mtrs	Amps.	Amps.
2 x 1.5	0.8	0.3	1.4		1.24	13.5	357	500/1000	23	20
3 x 1.5	0.8	0.3	1.4		1.24	14.0	390	500/1000	21	17
4 x 1.5	0.8	0.3	1.4		1.24	14.5	446	500/1000	21	17
5 x 1.5	0.8	0.3	1.4		1.24	15.5	491	500/1000	16	14
6 x 1.5	0.8	0.3	1.4		1.24	16.5	534	500/1000	15	13
7 x 1.5	0.8	0.3	1.4		1.24	16.5	544	500/1000	14	13
10 x 1.5	0.8	0.3	1.4		1.40	20.0	726	500/1000	13	11
12 x 1.5	0.8	0.3		4.0 x 0.8	1.24	19.0	632	500/1000	12	10
14 x 1.5	0.8	0.3		4.0 x 0.8	1.40	20.0	724	500/1000	11	10
16 x 1.5	0.8	0.3		4.0 x 0.8	1.40	21.0	778	500/1000	11	9
19 x 1.5	0.8	0.3		4.0 x 0.8	1.40	22.0	871	500/1000	10	9
24 x 1.5	0.8	0.3		4.0 x 0.8	1.40	25.0	1060	500/1000	9	9
27 x 1.5	0.8	0.3		4.0 x 0.8	1.40	25.5	1127	500/1000	9	8
30 x 1.5	0.8	0.3		4.0 x 0.8	1.40	26.5	1225	500/1000	9	7
37 x 1.5	0.8	0.3		4.0 x 0.8	1.40	28.0	1416	500/1000	8	7
2 x 2.5	0.9	0.3	1.4		1.24	14.5	438	500/1000	32	27
3 x 2.5	0.9	0.3	1.4		1.24	15.0	483	500/1000	27	24
4 x 2.5	0.9	0.3	1.4		1.24	16.0	554	500/1000	27	24
5 x 2.5	0.9	0.3	1.4		1.24	17.5	628	500/1000	23	19
6 x 2.5	0.9	0.3	1.4		1.24	18.5	676	500/1000	21	18
7 x 2.5	0.9	0.3	1.4		1.24	18.5	694	500/1000	20	17
8 x 2.5	0.9	0.3	1.4		1.40	20.0	793	500/1000	19	16
9 x 2.5	0.9	0.3		4.0 x 0.8	1.40	20.0	750	500/1000	18	15
10 x 2.5	0.9	0.3		4.0 x 0.8	1.40	21.0	795	500/1000	18	15
12 x 2.5	0.9	0.3		4.0 x 0.8	1.40	22.0	866	500/1000	17	14
14 x 2.5	0.9	0.3		4.0 x 0.8	1.40	23.0	969	500/1000	16	14
16 x 2.5	0.9	0.3		4.0 x 0.8	1.40	24.0	1051	500/1000	15	13
19 x 2.5	0.9	0.3		4.0 x 0.8	1.40	25.0	1181	500/1000	14	12
24 x 2.5	0.9	0.3		4.0 x 0.8	1.40	29.0	1459	500/1000	13	11
27 x 2.5	0.9	0.3		4.0 x 0.8	1.40	29.5	1564	500/1000	12	10
30 x 2.5	0.9	0.3		4.0 x 0.8	1.56	30.5	1723	500/1000	12	10
37 x 2.5	0.9	0.4		4.0 x 0.8	1.56	33.0	2014	500/1000	11	9

Construction Variants

1. Solid / Stranded annealed copper conductor &Tinned / Bare
2. General Purpose / HR PVC insulation
3. Cores laid up (filled if needed)
4. FRLS / General Purpose PVC inner sheath
5. Armouring round Galvanised Steel wires / strips
6. FRLS / General purpose PVC Outersheath

Max. Conductor D.C. Resistance at 20 Deg C - Conductor Size :

1.5 sq.mm - 12.1 Ω / km (Bare), 12.2 Ω / km (Tinned)
2.5 sq.mm - 7.41 Ω / km (Bare), 7.56 Ω / km (Tinned)

PVC INSULATED INDUSTRIAL CABLE (UNSHEATHED)

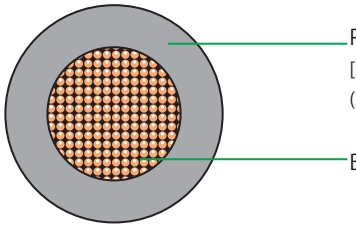
These are Single cables/cords with rigid as well as flexible annealed bare/tinned copper and aluminium conductors, insulated with PVC.

Indoor | Flame Resistant | RoHS compliant

Applications

These wires are rated for voltages upto and including 450/750 V AC, 50Hz and used for electric power and lighting including cables for outdoor and low temperature use. These cables may be used on DC system for rated voltages upto and including 1500 V to earth.

Typical Cross section



Features:

- Categories of Cables: Indoor, Outdoor, FR and FR-LSH.
- Temperature Range: -10° C to +70° C or +85° C.
- Available in different colors and stripes.
- Available in Leaded or Lead free grades.
- Packed in Coils of suitable standard lengths.
- BIS Certification vide IS 694 Licence No. CM/L 3050333

Technical Details

Nominal Cross Section Sq mm	Diameter of Single Wire Max mm	Maximum Electrical Resistance @ 20°C (Ω/Km)		Insulation Wall Thickness Nominal. mm	Cable Outer Diameter	
		Plain Wires	Tinned Wires		Nominal	Maximum
0.50	0.21	39.0	40.1	0.60	2.3	2.6
0.75	0.21	26.0	26.7	0.60	2.5	2.8
1.0	0.21	19.5	20.0	0.60	2.7	3.0
1.5	0.26	13.30	13.70	0.70	3.1	3.4
2.5	0.26	7.98	8.21	0.80	3.8	4.1
4.0	0.31	4.95	5.09	0.80	4.3	4.8
6.0	0.31	3.30	3.39	0.80	4.9	5.3
10.0	0.41	1.91	1.95	1.00	6.2	7.0
16.0	0.41	1.21	1.24	1.00	7.3	8.1
25.0	0.41	0.41	0.780	1.20	9.0	10.2
35.0	0.41	0.554	0.565	1.20	10.2	11.7
50.0	0.41	0.386	0.393	1.40	12.2	13.9

Note:

Cables upto 300 Sqmm with Flexible conductor (Class 5 of Copper Conductor as per IS 8130) can be supplied.

Cables upto 630 Sqmm with Rigid conductor (Class 1 or 2 of Copper or Aluminium Conductor as per IS 8130) can be supplied.

PVC INSULATED INDUSTRIAL CABLE (SHEATHED)

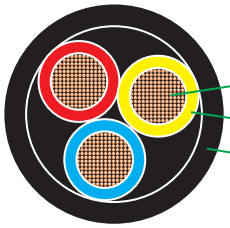
These are Single and multicore cables/cords with rigid as well as flexible annealed bare/tinned copper and aluminium conductors, insulated and sheathed with PVC.

Indoor | Flame Resistant | RoHS compliant

Applications

These wires are rated for voltages upto and including 450/750 V AC, 50Hz and used for electric power and lighting including cables for outdoor and low temperature use. These cables may be used on DC system for rated voltages upto and including 1500 V to earth.

Typical Cross section



Technical Details

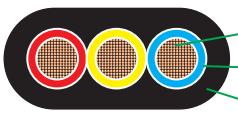
Nominal Cross Section Sq mm	Diameter of Single Wire Max mm	Maximum Electrical Resistance @ 20°C (Ω/Km)		Insulation Wall Thickness Nominal mm.	Sheath Thickness	Cable Outer Diameter	
		Plain Wires	Tinned Wires		Nominal mm.	Nominal	Maximum
0.50	0.21	39.0	40.1	0.60	0.90	7.0	7.3
0.75	0.21	26.0	26.7	0.60	0.90	7.4	7.7
1.0	0.21	19.50	20.0	0.60	0.90	7.8	8.1
1.5	0.26	13.30	13.70	0.60	0.90	8.3	9.4
2.5	0.26	7.98	8.21	0.70	1.00	9.9	10.9
4.0	0.31	4.95	5.09	0.80	1.00	11.5	12.4
6.0	0.31	3.30	3.39	0.80	1.20	13.1	13.8
10.0	0.41	1.91	1.95	1.00	1.40	16.5	17.69
16.0	0.41	1.21	1.24	1.00	1.40	18.8	20.6
25.0	0.41	0.780	0.795	1.20	1.50	22.6	25.6
35.0	0.41	0.554	0.565	1.20	1.60	25.3	29.3
50.0	0.41	0.386	0.393	1.40	2.00	30.2	34.6

Note:

a) Multicore Cables upto 120 Sqmm with Rigid conductor (Class 1 or 2 of Copper or Aluminium Conductor as per IS 8130) can be supplied

b) Multicore Cables upto 300 Sqmm with Flexible conductor (Class 5 Copper Conductor as per IS 8130) can be supplied.

Typical Cross section



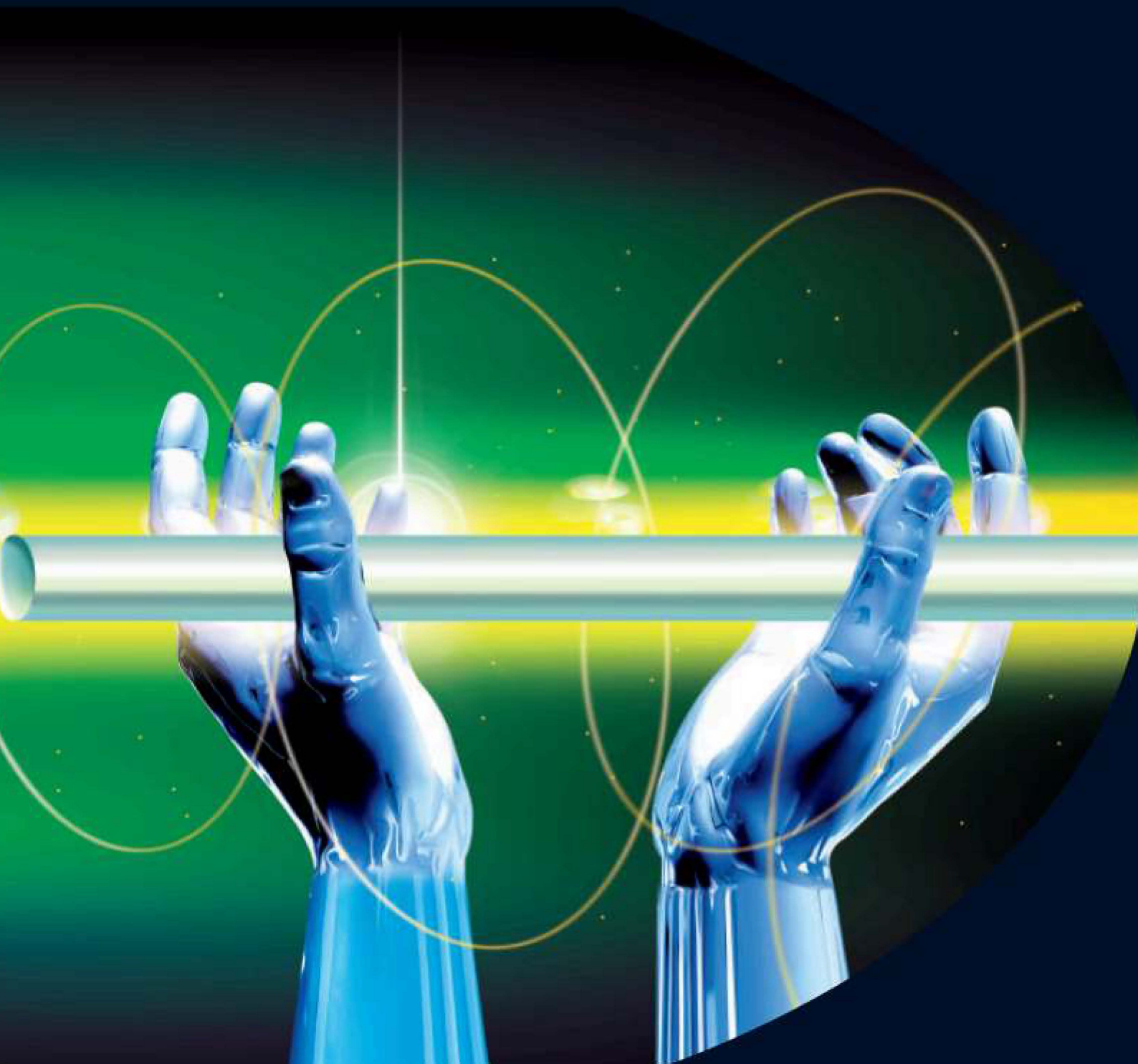
Technical Details

Nominal Cross Section Sq mm	Diameter of Single Wire Max mm	Maximum Electrical Resistance @ 20°C (Ω/Km)		Insulation Wall Thickness Min. mm	Sheath Thickness Nominal	Cable Outer Diameter mm
		Plain Wires	Tinned Wires			
0.50	0.21	39.0	40.1	0.60	0.90	9.6x4.9
0.75	0.21	26.0	26.7	0.60	0.90	10.5x5.2
1.0	0.21	19.5	20.0	0.60	0.90	11.0x5.4
1.5	0.26	13.30	13.70	0.70	0.90	10.7x5.3
2.5	0.26	7.98	8.21	0.80	1.00	13.0x6.2

Features:

- Categories of Cables: Indoor, Outdoor, FR and FR-LSH.
- Temperature Range: -10° C to +70° C or +85° C.
- Available in different colors and stripes.
- Available in Leaded or Lead free grades.
- Packed in Coils of suitable standard lengths.
- BIS Certification vide IS 694 Licence No. CM/L 3050333

FRP Rods



Fibre Properties

Specification of Multi Mode Optical fibre					
Transmission Properties	**Unit**	**OM1(62.5/125 µm) Values**	**OM2(50/125 µm) Values**	**(OM3) Values**	**(OM4) Values**
Attenuation at 850 nm	dB/km	< / = 3.0	< / = 2.9	< / = 2.9	< / = 2.9
Attenuation at 1300 nm	dB/km	< / = 0.7	< / = 0.9	< / = 0.9	< / = 0.9
Bandwidth at 850 nm	MHzKm	> / = 200	> / = 500	> / = 1500	> / = 3500
Bandwidth at 1300 nm	MHzKm	> / = 500	> / = 500	> / = 500	> / = 500
Numerical Aperture		0.275 ± 0.015	0.200 ± 0.015	0.200 ± 0.015	0.200 ± 0.015

Geometrical Properties	**Unit**	**Values**	**Values**	**Values**	**Values**
Core diameter	µm	62.5 ± 2.5	50.0 ± 3.0	50.0 ± 3.0	50.0 ± 3.0
Cladding diameter	µm	125 ± 1	125 ± 2	125 ± 2	125 ± 2
Core noncircularity	%	< / = 5	< / = 5	< / = 5	< / = 5
Cladding noncircularity	%	< / = 1	< / = 2	< / = 2	< / = 2
Core concentricity error	µm	< / = 1.5	< / = 2.0	< / = 2.0	< / = 2.0
Primary coating diameter	µm	245 ± 10	245 ± 10	245 ± 10	245 ± 10

Mechanical properties	**Unit**	**Values**	**Values**		
Proof test for minimum strain level and Duration of proof test	kpsi, Sec	> / = 100	> / = 100	> / = 100	> / = 100
Change in Attenuation with Bending					
100 Turns on 75mm Dia. Mandrel at 850	dB	< / = 0.50	< / = 0.50	< / = 0.50	< / = 0.50
100 Turns on 75mm Dia. Mandrel at 1300	dB	< / = 0.50	< / = 0.50	< / = 0.50	< / = 0.50
Strippability force to remove primary coating of fibre	Newton	1.3 to 8.9	1.3 to 8.9	1.3 to 8.9	1.3 to 8.9
Fibre Curl	Radius of curve	> / = 4 Mtr	> / = 4 Mtr	> / = 4 Mtr	> / = 4 Mtr
Dynamic tensile strength (unaged)	kpsi	> / = 550	> / = 550	> / = 550	> / = 550
Dynamic tensile strength (Aged)	kpsi	> / = 440	> / = 440	> / = 440	> / = 440
Dynamic Fatigue		> / = 18	> / = 18	> / = 18	> / = 18

Environmental Properties	**Unit**	**Values**	**Values**	**Values**	**Values**
Induced attenuation at 850 nm & 1300 nm for Temp. & Humidity cycle from -10°C to +85°C at 98 % humidity (min), ref temp 23°C	dB/Km	< / = 0.15	< / = 0.15	< / = 0.15	< / = 0.15
Induced attenuation at 850 nm & 1300 nm for Temperature cycle from -60°C to +85°C, ref temp 23°C	dB/Km	< / = 0.15	< / = 0.15	< / = 0.15	< / = 0.15
Induced attenuation at 850 nm & 1300 nm for Water Immersion at 23 ± 2°C	dB/Km	< / = 0.15	< / = 0.15	< / = 0.15	< / = 0.15
Induced attenuation at 850 nm & 1300 nm for Accelerated Ageing (Temperature) at 85 ± 2°C, ref temp 23°C	dB/Km	< / = 0.15	< / = 0.15	< / = 0.15	< / = 0.15

Specification of Single Mode Matched Clad Type & Non Zero Dispersion Optical fibre				
Transmission Properties	**Unit**	**ITU-T Rec. G-652.D Values**	**ITU-T Rec. G-655 Values**	**ITU-T Rec. G-657.A/IEC B6 Values**
Attenuation at 1310 nm	dB/km	< / = 0.35	-	< / = 0.35
Attenuation at 1550 nm	dB/km	< / = 0.22	< / = 0.24	< / = 0.22
Attenuation at 1625 nm	dB/km	< / = 0.25	< / = 0.26	< / = 0.25
Attenuation at 1383± 3 nm	dB/km	< / = 0.32	-	< / = 0.32
Point discontinuity	dB	< / = 0.05	< / = 0.05	< / = 0.05
Difference in maximum attenuation in the range from 1285 to 1330 nm w.r.t attenuation at 1310 nm	dB/km	< / = 0.03	-	< / = 0.03
Difference in maximum attenuation in the range from 1530 to 1570 nm w.r.t attenuation at 1550 nm	dB/km	< / = 0.02	< / = 0.03	< / = 0.02
Max. chromatic dispersion at 1285-1330 nm wavelength range	ps/nm.km	< / = 3.5	-	< / = 3.5
Max. chromatic dispersion at 1270-1340 nm wavelength range	ps/nm.km	< / = 5.3	-	< / = 5.3
Max. chromatic dispersion at 1530-1565 nm wavelength range	ps/nm.km	-	2.0 to 6.0	-
Max. chromatic dispersion at 12650-1625 nm wavelength range	ps/nm.km	-	4.5 to 11.2	-
Chromatic dispersion at 1550 nm	ps/nm.km	< / = 18.0	-	< / = 18.0
Zero dispersion wavelength	nm	1302 to 1322	-	1302 to 1322
Zero dispersion slope	nm^2.km	< / = 0.092	-	< / = 0.092
PMD at 1310 & 1550 nm (individual)	ps/sqrt.km	< / = 0.20	< / = 0.20	< / = 0.20
Link PMD	ps/sqrt.km	< / = 0.06	< / = 0.04	< / = 0.06
Fibre cut-off wavelength	nm	< / = 1320	-	< / = 1320
Mode field diameter range at 1310 nm	μm	9.2 ± 0.4	-	9.2 ± 0.4
Mode field diameter range at 1550 nm	μm	10.5 ± 0.5	9.6 ± 0.4	10.5 ± 0.5

Geometrical Properties	**Unit**	**Values**	**Values**	**Values**
Cladding diameter	μm	125 ± 0.7	125 ± 0.7	125 ± 0.7
Cladding noncircularity	%	< / = 0.7	< / = 0.7	< / = 0.7
Primary coating diameter (uncoloured)	μm	245 ± 5	242 ± 5	245 ± 5
Core/Clad concentricity error	μm	< / = 0.5	< / = 0.5	< / = 0.5
Coating / Cladding Concentricity error	μm	< / = 10	< / = 12	< / = 10

Mechanical properties	**Unit**	**Values**	**Values**	**Values**
Proof test for minimum strain level and Duration of proof test	kpsi, Sec	> 100	> 100	> 100
Change in Attenuation with Bending				
100 Turns on 60mm Dia. Mandrel at 1310	dB	< / = 0.05	-	-
100 Turns on 60mm Dia. Mandrel at at 1550	dB	< / = 0.05	< / = 0.05	< / = 0.01
100 Turns on 60mm Dia. Mandrel at at 1625	dB	-	< / = 0.01	< / = 0.05
1 Turn on 32 mm Dia. Mandrel at 1310	dB	< / = 0.5	-	-
1 Turn on 32 mm Dia. Mandrel at 1550	dB	< / = 0.5	< / = 0.5	-
1 Turn on 32 mm Dia. Mandrel at 1625	dB	-	< / = 0.5	-
1 Turn on 10 mm Dia. Mandrel at 1550	dB	-	-	< / = 0.2
1 Turn on 10 mm Dia. Mandrel at 1625	dB	-	-	< / = 0.5
Strippability force to remove primary coating of fibre	Newton	1.3 < F < 8.9	1.0 < F < 8.9	1.3 < F < 8.9
Fibre Curl	Radius of curve	> / = 4 Mtr	> / = 4 Mtr	> / = 4 Mtr
Dynamic tensile strength (unaged)	kpsi	> / = 550	> / = 550	> / = 550
Dynamic tensile strength (Aged)	kpsi	> / = 440	> / = 440	> / = 440
Dynamic Fatigue	-	> / = 20	> / = 20	> / = 20

Environmental Properties	**Unit**	**Values**	**Values**	**Values**
Induced attenuation at 1310 nm & 1550 nm for Temp. & Humidity cycle from -10°C to +85°C at 98 % humidity (min), ref temp 23°C	dB/Km	< / = 0.05	< / = 0.05	< / = 0.05
Induced attenuation at 1310 nm & 1550 nm for Temperature cycle from -60°C to +85°C, ref temp 23°C	dB/Km	< / = 0.05	< / = 0.05	< / = 0.05
Induced attenuation at 1310 nm & 1550 nm for Water Immersion at 23 ± 2°C	dB/Km	< / = 0.05	< / = 0.05	< / = 0.05
Induced attenuation at 1310 nm & 1550 nm for Accelerated Ageing (Temperature) at 85 ± 2°C, ref temp 23°	dB/Km	< / = 0.05	< / = 0.05	< / = 0.05

Note : Other values of G655 Fibre such as Dispersion and MFD can also be provided on request.

OPTICAL FIBRE CABLE HANDLING, INSTALLATION & SAFETY INSTRUCTION

Optical fibre cables can be easily damaged if they are improperly handled or installed. It is imperative that certain procedure be followed during Handling & Installation of these cables to avoid damage. Optical fibre cable requires special care during Handling & Installation to ensure reliable operation. This information given in the document is for Handling drum at various places from receiving in stores till shipment to the site for installation. Proper handling of cable drum decreases probability of accidental damage of cable and personnel. This document also contain some of the basic safety information applicable to Optical fiber cable. Personnel involved in Optical Fiber Cable installation must be aware of all the applicable occupational and health safety regulations and local regulations along with the company safety practices. Failure to follow the same can lead to fatal consequences to them as well as people in the vicinity.

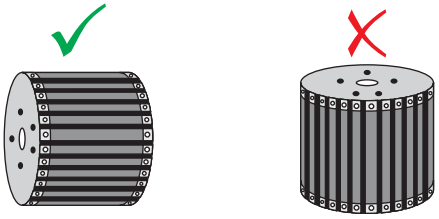
A) Some of the basic guidelines for Cable Drum Handling

Unloading the Cable Drums:

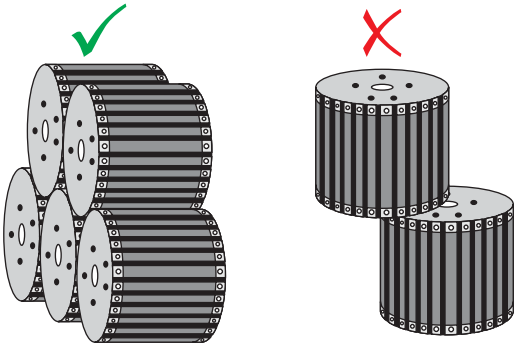
Cable drums should be properly unloaded from the truck/container. It is important that cable drum should not be dropped on tiers or floor. If cable drums are dropped on tiers or floor, due the weight of cable and wooden drum, flange of cable drum may get damage and also there are chances that cable will also get damage. The cable drum must be rolled from truck /container on to receiving platform, which is at the same height as the tailgate of truck/container or use forklift to unload drums from truck/container. If inclined ramps are used don't allow drums to roll out of control. Cable drums should be rolled in the direction as indicated on the flange of the drum to avoid any loosing of cable winding. Never step in front of drum rolling down a ramp. Roll each drum away from the bottom of the ramp before handling the next drum otherwise drum may collide to each other.

Storage of Cable Drums:

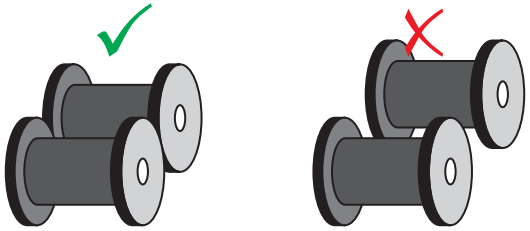
The drums should always be stored in an upright position i,e on the drum flange edge and not considering flange as base. Storage of drums in an alternative position can lead to winding defects.



Also follow the below shown figure for stacking the cable drums.



If many drums are opened at a time for inspection / testing, they should be arrange in such a way that flange of first drum should touch the flange of next drum. If this is not followed then there is chance that cable may get damage (flange of first drum may hit the cable on next drum). Correct way of arranging the opened cable drums is shown below.



B) Some of the basic guide line for Cable Installation

Drum Opening:

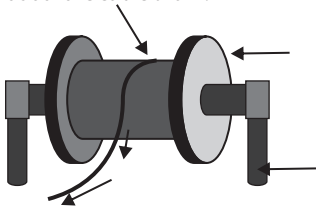
Cable drum are packed using wooden packing material. Packing material is nailed on the flange of cable drums. To further strengthen the packing, steel tape is nailed in circumference pattern over both the flanges. To open the cable drum, first cut the steel tape at 8 to 10 places. Remove the entire steel tape. Remove the nails with proper tools and remove the packing material. Nails should be bend to avoid injury to person handling it. Carry out visible inspection of the cable. Before starting installation check for attenuation value.

Packaging Pictures

OPTICAL FIBRE CABLE HANDLING, INSTALLATION & SAFETY INSTRUCTION

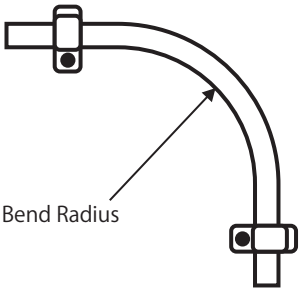
Mounting Drum on Pay-off:

For proper installation mount the cable properly on the pay off as shown below. This pay off should be properly lubricated. Height of the payoff should be suitably adjusted so the there is no problem is observed while pulling the cable out of the cable drum.

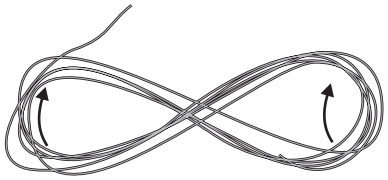


Pulling Technique:

Always use pulling grip to pull the cable. Pulling grip should be fixed with anti twist device (swivel pulling eye) so that cable is not twisted while pulling. Putting the twist in the cable can stress the fibres. If possible monitor the tension being applied to the cable while pulling. In no case the pulling tension should exceed the maximum rated pulling tension of the cable. If possible, use automated puller with tension control or at at least a breakaway-pulling eye. Use cable guide to maintain the recommended bend radius. Do not exceed the cable bend radius, exceeding the bend radius harms the fibres. It may not be immediate, it may even take a few years but eventually by exceeding the recommended bend radius of the cable, useful life of the cable reduces. In general the bending radius of a cable is greater than 20D, where D is the diameter of cable.



Before blowing the cable inside the duct or directly burring inside the ground, lay out the cable in figure 8 pattern as shown below. Turns the figure 8 cable 360 degree (upside down) before continuing. Pull the cable in opposite direction.



(C) Some of the basic safety guideline

1) Never look into a fiber having a laser coupled to it. If eye is accidentally exposed to LASER beam, immediately rush for medical assistance.

2) Do not drop fiber pieces on the floor where they will stick in carpets or shoes and be carried elsewhere. These fibre pieces are extremely sharp and can easily penetrate the skin. And any delay in taking the fiber out of body could lead to infection, which is dangerous. Therefore utmost care must be taken to depose the broken ends of fibers created during termination and splicing.

3) Various chemical cleaners and adhesives are used during preparation of Optical Fibre cable for splicing. The safety instructions defined as defined in MSDS (Material Safety Data Sheet) of these materials should be followed.

4) Electric arc is generated in fusion splicer while splicing of fibre. It should be ensured that there are no flammable gasses in the vicinity.

5) Only work in well ventilated areas.

6) Keep all food and beverages out of the work area. If fiber particles are ingested they can cause internal hemorrhaging

7) Do not touch your eyes while working with fiber optic systems until they have been thoroughly washed.

Packaging Pictures

ISO Certifications

Our products are designed and manufactured in facilities certified to meet the highest international quality management standards. We produce our own optical fibers using state-of-the art technology, ensuring compliance with the most demanding certifications and industry requirements.

- Certified for Quality Management Systems ISO 9001:2015
- Certified for TL-9000 R5.5/5.0H
- Certified for the Environment Management System ISO 14001:2015
- Certified for the Competence of Testing & Calibration Laboratories ISO/IEC 17025:2017
- Certified for the Occupational Health and Safety Management System OHSAS 18001:2007
- Certified for the Information Security Management System ISO 27001:2013
- ISO 45001:2018 Certified for the OHAS – Occupational Health and Safety Management System
- ISO 22301 Certified for the Business Continuity Management System

Sustainability

We understand the importance of preserving our planet for future generations. NEDIA Fiber is committed to sustainable practices across all facets of our business. We integrate sustainability into every decision we make. By prioritizing green initiatives, we aim to contribute to a cleaner, more sustainable future while supplying the high-quality products our customers expect.

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