

## Indoor-Outdoor Single Loose Tube Cable

### Introduction

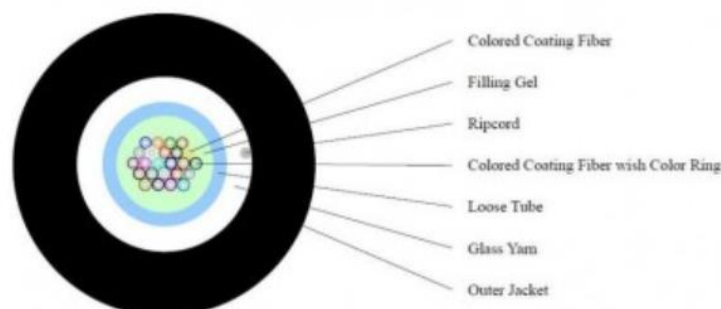
Indoor-Outdoor Single Loose Tube Cable is commonly known as Universal Central Loose tube Fiber Optic Cable. It is mostly installed in walls, between floors, in plenum air handling ducts and under data center floors. It can also be made into a 2 to 24 cores structure with a cross-section, non-metallic strength members and black LSZH, UV resistant jacket with ripcord type shaped. Due to its small diameter and flexibility, the universal fiber optic cable is ideal for installation in cable trays. It can be installed in modern FTTH and FTTB systems, server rooms or connections between buildings. Other sheath materials are available on request



### Features

The Indoor-Outdoor Single Loose Tube Cable bundles for in building cabling systems are dedicated for indoor and outdoor network infrastructure. The small diameter is suitable to be used in projects requiring large number of slots and the fiber number between 2~24 core optical fiber cable which can be routed into ducts, and optical fiber cable with the following features:

- Flame retardant characteristics meet the requirements of relevant standards
- Excellent temperature performance
- Soft and easy to strip
- High strength Single Loose Tube member
- Small bending radius
- Meet various requirements of market and clients
- Excellent environmental properties
- Perfect cable structure with high fiber density
- Singlemode or Multimode
- Fiber Type: G652D; 657A1; 50/125; 62.5/125; OM3; OM4 As Options



## Application

Indoor-Outdoor Single Loose Tube Cable bundles assemblies consist of a between 2~24 core, that enables installation of in building wiring applications. The fiber assemblies are bundled with outer sheath is a non-metallic strength member and black LSZH, UV resistant jacket with ripcord layer that is of low friction. This fiber cable is applied in Duct, cable trays and FTTx Access installations. Used in access network indoor in customer premises network. Used as access building cable in premises distribution system, especially used in indoor and outdoor access cabling, the design makes the fiber cable are suitable for the following applications:

- Used as access building cable
- Used as interconnect lines of equipment, and used in optical connections in optical communication rooms and optical distribution frames
- Indoor and outdoor cabling
- Distribution system cable

### Mechanical Performance Test compliance

- Tension: IEC 60794-1-21 Method E1
- Bend: IEC 60794-1-21 Method E11
- Crush: IEC 60794-1-21 Method E3

### Temperature Performance

- Storage [°C]: -40 to +70
- Installation [°C]: -20 to +60
- Operation [°C]: -40 to +70

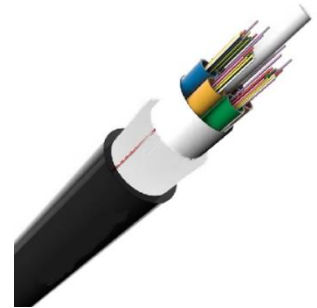
## Technical Specifications

Items	Unit	Specifications
<b>Cable Dimension</b>	mm	7 to 10
<b>Tension (Long Term )</b>	N	400
<b>Tension (Short Term )</b>	N	800
<b>Crush (Long Term )</b>	N/10cm	300
<b>Crush (Short Term )</b>	N/10cm	1000
<b>Min. Bend Radius (Dynamic )</b>	mm	20D
<b>Min. Bend Radius (Static )</b>	mm	10D
<b>Installation Temperature</b>	°C	-20~+60
<b>Operating Temperature</b>	°C	-40~+70
<b>Storage Temperature</b>	°C	-40~+70

## Indoor-Outdoor Multi Loose Tube Cable

### Introduction

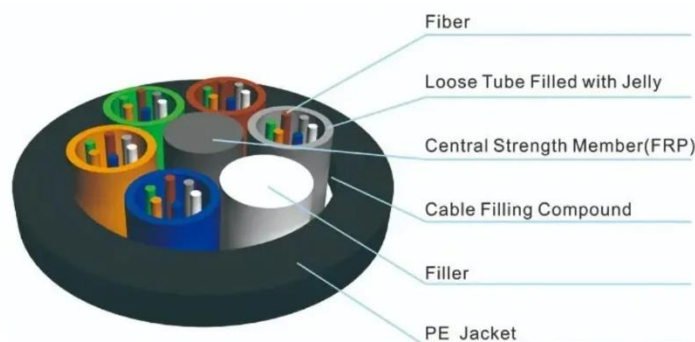
Indoor-Outdoor Multi Loose Tube Cable is commonly known as Universal Multi Loose tube Fiber Optic Cable. It is mostly Installed in riser ducts, cable trunks and under data center floors. It can also be made into a 12 to 144 cores structure with a cross-section non-metallic strength member and black LSZH, UV resistant jacket with ripcord type shaped. Due to its small diameter and flexibility, the universal fiber optic cable is ideal for installation in cable trays. It can be installed in modern FTTH and FTTB systems, server rooms or connections between buildings. Other sheath materials are available on request.



### Features

The Indoor-Outdoor Multi Loose Tube Cable bundles for in building cabling systems are dedicated for indoor and outdoor network infrastructure. The small diameter is suitable to be used in projects requiring large number of slots and the fiber number between 12~144 core optical fiber cable which can be routed into ducts, and optical fiber cable with the following features:

- Flame retardant characteristics meet the requirements of relevant standards
- Excellent temperature performance
- Soft and easy to strip
- High strength Single Loose Tube member
- Small bending radius
- Meet various requirements of market and clients
- Excellent environmental properties
- Perfect cable structure with high fiber density
- Singlemode or Multimode
- Fiber Type: G652D; 657A1; 50/125; 62.5/125; OM3; OM4 As Options



## Application

Indoor-Outdoor Multi Loose Tube Cable bundles assemblies consist of a between 12~144 core, that enables installation of in building wiring applications. The fiber assemblies are bundled with outer sheath is a non-metallic strength member and black LSZH, UV resistant jacket with ripcord layer that is of low friction. This fiber cable is applied in Duct, cable trays and FTTx Access installations. Used in access network indoor and outdoor in customer premises network. Used as access building cable in premises distribution system, especially used in indoor and outdoor access cabling, the design makes the fiber cable are suitable for the following applications:

- Used as access building cable
- Used as interconnect lines of equipment, and used in optical connections in optical communication rooms and optical distribution frames
- Indoor and outdoor cabling
- Distribution system cable

### Mechanical Performance Test compliance

- Tension: IEC 60794-1-21 Method E1
- Bend: IEC 60794-1-21 Method E11
- Crush: IEC 60794-1-21 Method E3

### Temperature Performance

- Storage [°C]: -40 to +70
- Installation [°C]: -20 to +60
- Operation [°C]: -40 to +70

## Technical Specifications

Items	Unit	Specifications
<b>Cable Dimension</b>	mm	9 to 12
Tension (Long Term )	N	600
Tension (Short Term )	N	1500
Crush (Long Term )	N/10cm	300
Crush (Short Term )	N/10cm	1000
Min. Bend Radius (Dynamic )	mm	20D
Min. Bend Radius (Static )	mm	10D
Installation Temperature	°C	-20~+60
Operating Temperature	°C	-40~+70
Storage Temperature	°C	-40~+70

## Packaging

Standard length of cable is 4,000 meters. Other cable length is also available if required by customer. Each length of the cable shall be wound on a separate wooden reel. Both ends of the cable shall be sealed with a suitable plastic cap to prevent the entry of moisture during shipping, handling and storage. The cable ends shall be securely fastened to the reel to prevent the cable from becoming loose in transit or during placing operations.

## Marking

The jacket shall be marked with white characters at intervals of one meter with following information. Other marking is also available if requested by customer.

- 1) Cable type and fiber number
- 2) Name of the manufacturer
- 3) Year of manufacture
- 4) Length marking

## Ordering Information

Product Code	Description
LN-LW-xxF-IO-SM	Indoor-Outdoor Fiber Cable Single Loose Tube Single Mode
LN-LW-xxxF-IO-SM-M	Indoor-Outdoor Fiber Cable Multi Loose Tube Single Mode

**\* Note:**

xx= For the number of fibers  
xxx= For the number of fibers

\*\* All cables are available in Singlemode or Multimode

**Notice:** The data in this document are only reference and will be changed without any notice. This specification is intended as a guide only.