

# PVC Nitrile

- Family: Elastomeric
- Use: Insulation and Sheathing

## General characteristics

*NBR/PVC is a vulcanisable blend of Nitrile rubber and polyvinyl chloride. It is sometimes referred to as Nitrile/PVC. The proportion of Nitrile rubber and PVC can be varied within limits to give products having different degrees of resistance to oils and solvents.*

*Sheathings produced from NBR/PVC blends have excellent resistance to ozone and weathering. They exhibit good resistance to oils and aromatic solvents. They can be formulated to give good flame retardant, mechanical and abrasion-resistant properties. The resistance to heat ageing of NBR/PVC is good – of the same order as [PCP](#) but inferior to CSP. NBR/PVC has, however, rather poor low-temperature flexibility, although it is usually adequate for the outdoor temperatures encountered in this country.*

## Processing

*Nitrile and PVC polymers are compounded in standard rubber compounding equipment and formulated to produce the relevant final properties. PVC/N*

*requires vulcanisation. Extrusion is by single screw process, with vulcanisation achieved using standard CV tubes or by various autoclave processes.*

## Uses of material/Cable types

*NBR/PVC is used for sheathing purposes where resistance to oils and solvents is of paramount importance. Being, however, inferior in most other respects to CSP, it is only employed to a small degree for sheathing over heat-resisting elastomeric cores. The maximum continuous operating temperature for NBR/PVC is normally given as 70°C. Some users claim temperatures up to 85°C are possible, but this does not appear to have general recognition.*

## Standards

*Cables manufactured from PCP compounds are included in the following standards:*

- IEC 60092 – series*
- IEC 60245 – series*
- BS EN 50363 – series*
- BS EN 50525 – series*
- BS 6708*

- *BS 7655*
- *DIN VDE 0207 – series*