



Caledonian

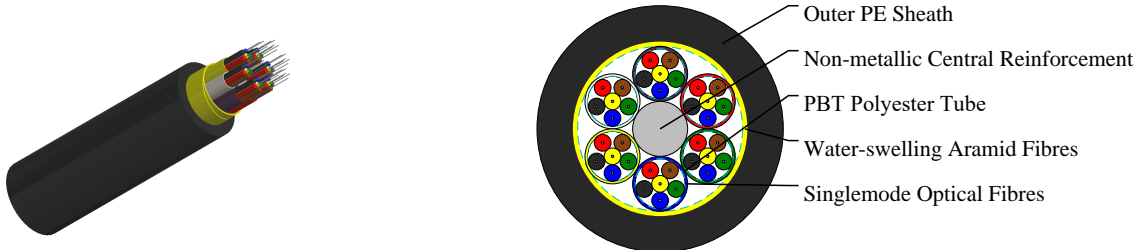
Railway Cables

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ST2513/CT2243 Outdoor Single Mode Unarmoured Trackside Optical Fiber Cables

ROB3-ML-B-9-6x6-F-2Y



APPLICATIONS

The cables are designed for long distance telecom links on optical fibres along railway tracks. The cables are suitable for pulled through ducts or laid in channels.

STANDARDS

SNCF ST 2513-99

CABLE CONSTRUCTION

Fibres: Singlemode optical fibres G652 coloured (6 or 12 per tube)

Tube: PBT polyester tubes From 12 to 72

OFs: 1 to 6 tubes; 144 OFs: 12 tubes.

Central Strength Member: Non-metallic central reinforcement (FRP).

Filling: Petroleum jelly + water-swelling yarns.

Reinforcement: Water-swelling aramid fibres.

Sheath: PE sheath.

PHYSICAL AND THERMAL PROPERTIES

Minimum Bending Radius: from 12 to 72 FO: 230mm; 144 FO: 340mm.

Temperature Range: -30°C to +60°C (during operation); -10°C +60°C (during installation)

Electrical Properties

Electrical Characteristics at 20°C:

Maximum Attenuation: G652

@1310nm: 0.35 dB/km

@1550nm: 0.22 dB/km

Maximum Chromatic Dispersion:

Between 1260 and 1360nm: 3.5 ps/(nm/km)

Between 1530 and 1565nm: 19 ps/(nm/km)

Zero Dispersion Wavelength: 1310±11 nm

Zero Dispersion Slope: 0.09 ps/(nm².km)

Numerical Aperture: 0.14



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Point discontinuity:0.1 dB

PMD (individual fiber):0.2 ps/km

Maximum Cutoff Wavelength:1260 nm

Cladding Diameter:125±1 um

Core/Cladding Concentricity Error:≤0.5 um

Cladding Non Circularity:≤1%

Coating Non Circularity:≤6%

Proof Test Level:100 (0.7) Kpsi (GN/m²)

Crush Resistance:300 N/cm

Maximum Laying Tension: From 12 to 72 FO: 2500;144 FO:3000 N

DIMENSION AND PARAMETERS

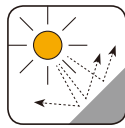
| No. of fibres | No. of Tubes × No. of Fibres/Tube | Nominal Sheath Thickness | Nom. Overall Diameter | Approx. Weight |
|---------------|--------------------------------------|-----------------------------|--------------------------|----------------|
| | | mm | mm | kg/km |
| 36 | 6 tubes of 6 OF | 1.5 | 11.6 | 112 |



Laid In Channel



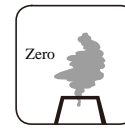
Laid In Ducts



UV Resistant



Water Resistant



Zero Halogen
IEC 60754-1/EN 50267-2-1
NF C20-454