



# Caledonian

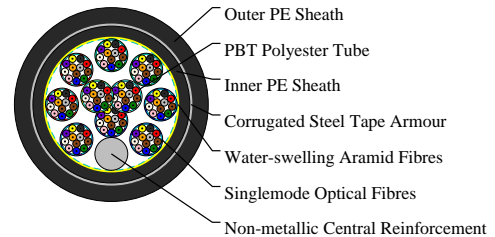
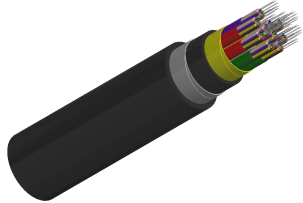
Railway Cables

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## CT2242 Outdoor Single Mode Armoured Trackside Optical Fiber Cables

RO2242-ML-C-9-10X12-SR-2Y(STA)2Y



### APPLICATIONS

The cables are designed for long distance telecom links on optical fibres along railway tracks. The cables are suitable for installation directly in channels or buried.

### STANDARDS

SNCF CT 2242.6.1

### CABLE CONSTRUCTION

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

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

Tube: PBT polyester tubes containing fibres

Filling: Petroleum jelly with water-swelling yarns to provide longitudinal watertightness

Inner Sheath: Low density polyethylene

Armour: 0.25mm thick corrugated steel tape armour.

Outer Sheath: Low density polyethylene.

### PHYSICAL AND THERMAL PROPERTIES

Minimum Bending Radius: 310mm.

Temperature Range: -40°C to +70°C (during operation); -10°C +70°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/(nm<sup>2</sup>.km)

Numerical Aperture: 0.14



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## Railway Cables

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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/m<sup>2</sup>)

Crush Resistance:450 N/cm

Maximum Laying Tension:3000 N

### DIMENSION AND PARAMETERS

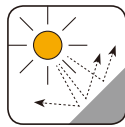
No. of fibres	Nominal Sheath Thickness	Nom. Overall Diameter	Approx. Weight
	mm	mm	kg/km
120	1.5	22	510



Laid In Channel



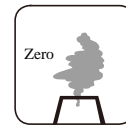
Laid In Ducts



UV Resistant



Water Resistant



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