

Fibre hybrid cable

Type 3744K



Construction characteristics

Fibre optic element	Steel tube (1.9 mm OD) with 4 off single mode fibre SM (9/125) type Strong bend-EX single mode fibre ITU-T G657.B2 and 4 off multi mode fibre MM (50/125) type BandAble OM2/OM2+ Bend-Insensitive Black polyethylene jacket to a nominal OD of 3.5 mm SM fibre colour white, yellow, green, blue MM fibre colour red, orange, brown, grey
Conductor	1.0 mm ² (18 AWG) stranded tinned copper conductor with double layer of tecnopolymer compound insulation. Nominal OD 2.23 mm (7 each) Colour red, orange, yellow, green, blue, violet, brown
Wrap	Mylar tape
Inner jacket	Polyurethane jacket. 1.3 mm wall thickness. Colour red
Strain element	High strength textile braid
Outer jacket	Polyurethane 1.5 mm wall thickness. Colour red RAL 3000 Glossy
European directives	2002/95/CE (RoHS) and 2002/96/CE (WEEE)
Halogen free	Acc. to EN 50267-2-1 – IEC 60754-1

Mechanical characteristics

Diameter	16.0 mm ± 0.40 mm
Weight in air	280 kg/km
Weight in seawater	80 kg/km
Min. bending radius, static	160 mm
Min. bending radius, dynamic	240 mm
Safe working load	10 kN
Min. breaking strength	50 kN
Depth rating	6,000 m
Operating temperature range	-20°C - +80°C

Electrical and fibre optical characteristics

Operating voltage	3,000 V
Test voltage	6 kV.a.c. x 1 minute

Electrical resistance at 20°C	≤ 20.4 Ω/km	
Insulation resistance at 20°C	≥ 1,000 MΩ x km	
Fibre attenuation (SM – dB/km)	≤ 0.38 dB/km at 1,310 nm	
	≤ 0.25 dB/km at 1,550 nm	
	Mandrel radius 15 mm at 1,550 nm 10 turns	≤ 0.03 dB
	Mandrel radius 15 mm at 1,626 nm 10 turns	≤ 0.10 dB
	Mandrel radius 10 mm at 1,550 nm 1 turn	≤ 0.10 dB
	Mandrel radius 10 mm at 1,625 nm 1 turn	≤ 0.20 dB
	Mandrel radius 7.5 mm at 1,550 nm 1 turn	≤ 0.50 dB
	Mandrel radius 7.5 mm at 1,625 nm 1 turn	≤ 1.00 dB
Fibre attenuation (MM – dB/km)	≤ 2.80 dB/km at 850 nm	
	≤ 0.80 dB/km at 1,300 nm	
	Mandrel radius 37.5 mm at 850 nm 100 turns	≤ 0.05 dB
	Mandrel radius 37.5 mm at 1,300 nm 100 turns	≤ 0.15 dB
	Mandrel radius 15 mm at 850 nm 2 turns	≤ 0.10 dB
	Mandrel radius 15 mm at 1,300 nm 2 turns	≤ 0.30 dB
	Mandrel radius 7.5 mm at 850 nm 2 turns	≤ 0.20 dB
	Mandrel radius 7.5 mm at 1,300 nm 2 turns	≤ 0.50 dB