Fibre hybrid cable
Type 3644

Construction characteristics

Fibre optic element	4 single mode optical fibres 9/125 µm type Strong bend-EX single mode fibre ITU-T G657.B2 and 4 multi mode optical fibres 50/125 µm type BandAble OM2/OM2+ Bend-Insensitive in jelly filled stainless steel tube with Polyolefin jacket 3 mm diameter SM fibre colour white, yellow, green, blue MM fibre colour red, orange, brown, grey
Conductor	1.0 mm^2 stranded tinned copper conductor insulated with polyolefin 3 mm diameter, (6 each) Colour brown, red, orange yellow, green, blue
Filler	Hot melt filler + binder tape
Inner jacket	Polyurethane jacket. Nominal thickness 0.85 mm.Colour glossy green
Environment lights	Used in sea water, exposed to air, snow, rain and sun
Environment directives	2002/98/CE RoHs and 2002/96/CE WEEE
Halogen free	Halogen acid gas emission ≤0,5% when tested in accordance to IEC 60754-1 – CEI 20-37p

Mechanical characteristics

Diameter	10.90 ±0.40 mm
Weight in air	170 kg/km
Weight in seawater	76 kg/km
Min. bending radius, static	109 mm
Min. bending radius, dynamic	164 mm
Qualified pressure test	6,000 m (600 bar)
Operating temperature range	-20°C - +80°C

Electrical and fibre optical characteristics

Operating voltage	1,000 V Va.c.
Test voltage	3,000 V Va.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