

Fibre hybrid cable

Type 3644KCC



Construction characteristics

1 x Fibre optic cable	4 x 9/125µm OS2 single mode fibres RD, GN, YW, BU 4 x 50/125µm OM3 multimode fibres WH, VT, OR, BK Inside gel-filled stainless steel tube 1.48 mm ID 1.88 mm OD LDPE jacket, 0.50 mm nom RTI OD: 2.90 mm
6 x Conductors	1.00 mm ² (32/0.20 mm) Tinned Copper XLPE insulated, 0.30 mm nom RTI OD: 1.90 mm. Colour: RD, OR, YW, GN, BU, BN
Lay up	Conductors and filler twisted around fibre optic cable with fillers in interstices Overall water-swellable tape, minimum overlap 50% OD: 7.50 mm
Bedding	Polyether Polyurethane, 85 Shore A, Halogen Free, 1.50 mm nom RTI OD: 10.50 mm Colour: GN
Strength member	Vetran [®] fibre braid, 185,000 dTex OD: 12.00 mm
Jacket	Polyether Polyurethane, 85 Shore A, Halogen Free, 1.50 mm nom RTI OD: 15.00 mm +/-0.40 Colour: GN

Mechanical characteristics

Max. operating temp	
Static	+90°C
Dynamic	+80°C
Cold flex temp	-40°C
Depth rating	6,000 m
Min. break load	25 kN
Recommended safe work load	5 kN

Mechanical characteristics

Min. recommended bend radius

Static	145 mm
Dynamic	218 mm

Nominal weight

In air	231 kg/km
In seawater	74 kg/km at SG 1.025

Electrical characteristics

1.00 mm² Conductors

Max. conductor resistance	19.20 Ω/km at 20°C
Min. insulation resistance Core - Core	> 1.00 GΩ/km
Voltage rating U _o /U	600/1,000 V _{rms}
Test voltage	3.50 kV AC

Optical characteristics

9/125 µm single mode fibres

Attenuation at		
1310 nm	< 0.40 dB/km	
1550 nm	< 0.40 dB/km	
	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

50/125 µm multimode fibres

Attenuation at		
850 nm	< 3.50 dB/km	
1300 nm	< 1.50 dB/km	
	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

In compliance with CE, UK CA, UK NI, RoHS, LVD