

# Fume-Guard Cable Range

## 6181B / Double Insulated Single Core

(Complies with BS 7211:2012)

Class 2 Stranded Copper  
XLPE (Cross Linked Polyethylene) Insulation  
Low Smoke Zero Halogen Sheath



### Application

Double Insulated single core cable used for general surface cable for fixed installation, domestic and light industrial use. Often used as meter tails.

The cable is manufactured with a Low Smoke Zero Halogen (LSZH) sheath, making it suitable for installations in public buildings where, in the event of fire, smoke and acid gas evolution would pose a hazard to public life and equipment.



### Cable Description

Class 2 stranded copper wire,

Low smoke zero halogen cross linked polyethylene (XLPE)

Low smoke zero halogen sheath

**N.B.** In the event of fire, the gases evolved from this cable are free from Halogen and the design is optimised to limit the quantity and cleanliness of the smoke evolved during this period. Although the acronym HFFR is applied to the sheath material, the terms LSOH, HFFR and HFFR are also applicable.

### Insulation Colours

Blue / Brown

### Sheath Colours

White

### Third party Accreditation



Cables are tested and approved by  
BASEC (British Approvals Service for Cables)

### Physical characteristics

Nominal Cross-Sectional Area (mm <sup>2</sup> )	Nominal Radial Thickness Insulation (mm)	Nominal Radial Thickness Sheath (mm)	Maximum Diameter (mm)	Maximum Conductor Resistance at 20°C (ohms/km)	Nominal Weight (kg/km)
1.5	0.70	0.80	5.20	12.10	31
2.5	0.70	0.80	5.60	7.41	41
4.0	0.70	0.90	6.40	4.61	62
6.0	0.70	0.90	7.10	3.08	82
10.0	0.70	0.90	8.10	1.83	126
16.0	0.70	0.90	9.20	1.15	180
25.0	0.90	1.00	11.40	0.73	280
35.0	0.90	1.10	12.80	0.52	370

### Mechanical characteristics

Characteristic	Unit	Value
Operating Temperature Range	°C	90
Minimum Bend Radius up to 25mm <sup>2</sup>	Diameter	8D

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Minimum Bend Radius 35mm2	Diameter	12D
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### Electrical characteristics at 20°C

Characteristic	Unit	Value
Voltage Rating	V	450/750
Voltage test at 20°C	KV	2.5
Current Rating Table	-	4E1A / 4E1B

### Fire Performance

Test	Test Method	Value	Comment
Fume Emission	XR-F	No halogen, nitrogen, phosphorous or Sulphur containing com-pounds (trace elements $\leq$ 0.5% w/w)	Compliant
Single Cable Vertical Burn Test	BS EN 60332-1: 2004	Onset of char (from top support): > 50mm Extent of char (from top support): < 540mm	Compliant
Bunched Cable Vertical Burn Test	BS EN 50399	PHR / THR / FIGRA / SPR / TSP / d	Compliant
Acid Gas Emission	BS EN 50267-2-1: 1999	Less than 5mg/g	Compliant
Smoke Emission	BS EN 61034-2: 2005	Minimum light transmittance >60%	Compliant
CPR Euro Classification	BS EN 50575-201 4 AI-2016	Dca	