



Doncaster Cables



ENHANCED FIRE PERFORMANCE CABLE



Manufactured to BS 7629-1 Table 1

Plain Annealed Copper Conductors / Silicone Rubber Insulated / Glass Fibre Tape / Tinned Copper Circuit Protective Conductor / Double Layer of Copper/Polyester Tapes / Thermoplastic Low Smoke Non-Halogen (LSNH) Sheath. 300/500V

Conductor: Plain Annealed Copper Class 1 or 2 to BS EN 60228

Insulation: Silicone Rubber Type EI2 to BS EN 50363-1

Screen 1: Glass Fibre Tape

Screen 2: Double Copper/Polyester Screen In Direct Contact With Tinned Annealed Copper CPC. Providing excellent Earthing Characteristics

Sheath: Thermoplastic LSNH Type LTS 3 to BS 7655-6.1

Current Ratings: For current ratings refer to table 4D2 of BS7671 IEE Wiring Regulations Seventeenth Edition.

These cables are suitable for both indoor and outdoor applications in suitably protected environments and is particularly appropriate for direct burial in plaster, clipped directly to surface, tray and other installations requiring a dressable product.

STANDARD CORE COLOURS



The British Cable Company You Can Trust



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FIRE PERFORMANCE : BS 6387:2013 (Category C – Resistance to fire alone, 3 hours at 950°)
 BS 6387:2013 (Category W – Resistance to fire with water spray)
 BS 6387:2013 (Category Z – Resistance to fire with mechanical shock)
 IEC 60311-21 (950°C)
 IEC 60332-3-24
 EN 50200:2015 (Enhanced 120)
 BS8434-2 (120 minutes)
 BS 5839-1 Clause 26.2e (Enhanced)

Conductor Identification:

Two Core - Blue and Brown (plus CPC)
 Three Core - Brown , Black and Grey (plus CPC)
 Four Core -Blue, Brown, Black and Grey (plus CPC)

Recommended Clips and Clipping Distances:

Size (mm ²)	2 Core				3 Core				4 Core			
	1.0	1.5	2.5	4.0	1.0	1.5	2.5	4.0	1.0	1.5	2.5	4.0
Recommended Clip	30	34	43	47	34	37	47	54	37	43	51	54
Maximum Horizontal Clipping Distance	250	300	300	300	300	300	300	300	300	300	300	350
Maximum Vertical Clipping Distance	400	400	400	400	400	400	400	400	400	400	400	450

Weight and dimensional information is provided as an approximate guide only.

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Dimensional Details:

Reference Number	Number and nominal cross sectional area of conductors (mm ²)	Nominal stranding of conductor (mm)	Nominal Stranding of CPC (mm)	Nominal radial thickness of insulation (mm)	Nominal radial thickness of sheath (mm)	Nominal Overall Diameter (mm)	Approximate weight (kg/km)
HFSP2C1.0	2 x 1.0	1/1.13	1 / 1.13	0.6	0.9	8.5	104
HFSP2C1.5	2 x 1.5	1/1.38	1 / 1.38	0.7	0.9	9.0	128
HFSP2C2.5	2 x 2.5	7/0.67	7/0.67	0.8	1.0	11.0	185
HFSP2C4.0	2 x 4.0	7/0.85	7/0.85	0.8	1.1	12.3	TBA
HFSP3C1.0	3 x 1.0	1/1.13	1 / 1.13	0.6	0.9	9.0	TBA
HFSP3C1.5	3 x 1.5	1/1.38	1 / 1.38	0.7	0.9	10.0	TBA
HFSP3C2.5	3 x 2.5	7/0.67	7/0.67	0.8	1.0	12.5	251
HFSP3C4.0	3 x 4.0	7/0.85	7/0.85	0.8	1.1	13.3	TBA
HFSP4C1.0	4 x 1.0	1/1.13	1 / 1.13	0.6	1.0	9.6	142
HFSP4C1.5	4 x 1.5	1/1.38	1 / 1.38	0.7	1.0	11.0	187
HFSP4C2.5	4 x 2.5	7/0.67	7/0.67	0.8	1.1	13.0	264
HFSP4C4.0	4 x 4.0	7/0.85	7/0.85	0.8	1.2	15.0	399

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FIRESURE PLUS BENEFITS ENHANCED FIRE PERFORMANCE CABLE



Our Firesure Plus cable has at least twice as many copper tapes than any other leading Fire Performance Cable; some other enhanced fire performance cables even opt to use an aluminium tape (usually seen on standard fire performance cables). The Firesure Plus design also incorporates a glass fibre tape which covers the inner conductors. These additional protections improve the fire performance and general characteristics of our cable.

The Doncaster Cables Firesure Plus design offers numerous advantages in comparison to some other suppliers who opt for a 'longitudinally applied tape' design. These longitudinal designs mean that the metallic tape required is simply folded along the inner conductors with a minimum 1mm tape overlap. In comparison to this, the Firesure Plus design consists of 2 'helically' applied copper tapes. This helically applied tape design means that both tapes are continuously wrapped around the conductors with a minimum tape overlap of 20%.

This increased overlap allows for the following key performance benefits. The following benefits are further amplified through Firesure Plus cable as there are two metallic tapes as opposed to the minimum British Standard requirement of a single tape.

FIRESURE PLUS KEY BENEFITS IN COMPARISON TO OTHER FIRE PERFORMANCE CABLES:

- HIGHER RESISTANCE TO ELECTROMAGNETIC INTERFERENCE
- SUPERIOR EARTH CONTINUITY (The bare CPC is placed between two copper tapes)
- ENHANCED RESISTANCE TO CABLE KINKS (Subsequently protecting cables performance)
- EXTREMELY ROBUST/DURABLE DESIGN (Due to increased tape numbers and overlap)
- IMPROVED DATA TRANSMISSION (Due to twisted cores and additional screening)

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Certificate of Product Approval

Certificate Number: 338b

Issue: 04

Doncaster Cables

Millfields Industrial Estate
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is authorised to use the LPCB mark in association with the product(s) listed in this certificate and appendix having complied with the requirements of the standard(s) detailed below:

Product(s)

Cable Types as listed below:
 FIRESURE PLUS
 See Certificate Appendix for details

Standard(s) (see Appendix for details)

BS 7629-1:2015 (ENHANCED 120)
 BS 6387:2013 (Category CWZ)
 IEC 60331-21:1999
 IEC 60332-3-24:2000+A1:2008
 EN 50200:2015 (Class PH120)
 BS 8434-2:2003+A2:2009 (120 mins)
 BS 5839-1:2002+A2:2013 (Clause 26.2e)

This Certificate is maintained and held in force through regular surveillance activities and subject to the corresponding ISO 9001 Certificate being maintained.

Damien Ward

Signed for LPCB

Damien Ward
 Certification Scheme Manager

19 December 2016
 Date of Issue

14 February 2008
 Date of First issue



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Appendix to Certificate No: 338b Doncaster Cables

Issue: 04

Product name								LPCB Ref. No.
FIRESURE PLUS								338b/01
Nominal csa of conductor (mm ²)	Core Construction	BS 7629-1	BS 6387	IEC 60311-21	IEC 60332-3-24	EN 50200	BS 8434-2	BS 5839-1 Clause 26.2
1.0 ⁽¹⁾	2	ENHANCED 120 ⁽³⁾	C,W,Z	Complies ⁽⁴⁾	Complies	Class PH120	120mm ⁽⁵⁾	Standard ⁽⁵⁾
1.5 ⁽¹⁾	2,3 & 4	ENHANCED 120 ⁽³⁾	C,W,Z	Complies ⁽⁴⁾	Complies	Class PH120	120mm ⁽⁵⁾	Standard ⁽⁵⁾
2.5 ⁽²⁾	2,3 & 4	ENHANCED 120 ⁽³⁾	C,W,Z	Complies ⁽⁴⁾	Complies	Class PH120	120mm ⁽⁵⁾	Standard ⁽⁵⁾
4.0 ⁽²⁾	2,3 & 4	ENHANCED 120 ⁽³⁾	C,W,Z	Complies ⁽⁴⁾	Complies	Class PH120	120mm ⁽⁵⁾	Standard ⁽⁵⁾

Uo/U 300/500V

Notes:

- Solid conductor only.
- Stranded conductor only.
- In meeting the requirements of BS 7629-1:2015, the FIRESURE PLUS cables listed met the requirements for smoke density to EN 61034-2:2005+A1-2014, and achieved less than 0.5%HCl for the outer covering, binding tape & insulation when tested in accordance with EN 60754-1:2014 and in addition also met the fire resistance requirements in BS 6387:2013 Categories CWZ.
- These cables met the requirements of IEC 60331-21:1999 when tested at a temperature of 950°C
- The duration of 120 min when tested in accordance with BS 8434-2:2003+A2:2009 is achieved by 60 min for the fire and impact phase and an additional 60 min for the fire, impact and water phase as described in Clause 26.2e of BS 5839-1:2013.
- The FIRESURE PLUS cables listed conform to BS 7629-1:2015, met Class PH 120 when tested in accordance with EN 50200: 2015 and met a duration of 120min duration when tested in accordance with BS 8434-2:2003+A2:2009 and hence met the requirements for an enhanced fire resistant cable as described in Clause 26.2e of BS 5839-1:2013.

This Certificate is maintained and held in force through regular surveillance activities and subject to the corresponding ISO 9001 Certificate being maintained.

Damien Ward

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