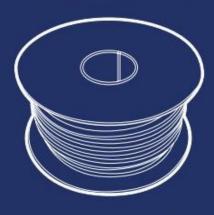


1984



LARGEST BRITISH OWNED MANUFACTURER of GENERAL WIRING CABLES in the UK



Trading for over 35 years from its 300,000 square foot manufacturing unit in Doncaster, South Yorkshire, Doncaster Cables is equipped to handle most aspects of cable manufacture.

All production stages from copper wire drawing, stranding, extrusion, armouring, testing and final winding are all controlled by advanced plant and machinery resulting in a high-quality range of standard and specialist cables produced to meet the needs of our global customer base.

# FIRST CLASS SERVICE, QUALITY, SAFETY AND RELIABILITY ARE THE CORE VALUES OF DONCASTER CABLES

Customer service and the distribution process are at the heart of the company throughout the manufacturing process.

Our Firesure® range of fire performance cables are world renowned for being manufactured to the highest quality and being designed to the highest specification possible, offering features and benefits that are unique and not found in any of our competitors' cables.



# FIRE PERFORMANCE CABLE

Manufactured to BS7629-1 Table 1

Plain Annealed Copper Conductors / Silicone Rubber Insulated / Circuit Protective Conductor / Single Layer of Aluminium/Co-Polymer Tape (tape is adhered to the sheathing and will come away with the sheath when stripping the cable) 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: Single Aluminium/Co-Polymer Screen In Direct Contact With Tinned Annealed Copper CPC.

Providing excellent Earthing Characteristics

Binding Tape: 'Easy tear' polyester tape which allows easier removal of the sheath

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

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

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.



2 CORE 3 CORE 4 CORE









#### 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)

EN 50200:2015 (ph30, ph60 and ph120)

EN 50200:2015 Annex E – Resistance to fire with mechanical shock and water

BS 5839-1 Clause 26.2d (Standard)

#### RELEVANT STANDARDS:

BS EN 60332-1-2 (Vertical flame propagation)

BS EN 60754-1 (Emission of acid gas)

BS EN 61034-2 (Smoke density)

#### 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)

	2 Core				3 0	ore	4 Core	
Size (mm²)	1.0	1.5	2.5	4.0	1.5	2.5	1.5	2.5
Recommended Clip (DC)	26	30	34	47	32	43	34	47
Maximum Horizontal Clipping Distance	300	300	300	300	300	300	300	300
Maximum Vertical Clipping Distance	400	400	400	400	400	400	400	400

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

#### Dimensional Details:

Reference Number	Number and nominal cross sectional area of conductors (mm²)	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)
HFS5002C1.5	2 x 1.5	1/1.38	1 / 1.38	0.7	0.9	7.8	95
HFS5002C2.5	2 x 2.5	1/1.78	1/1.78	0.8	1.0	8.9	140
HFS5002C4.0	2 x 4.0	7/0.85	7/0.85	0.8	1.1	10.9	231
HFS5003C1.5	3 x 1.5	1/1.38	1/1.38	0.7	0.9	8.3	120
HFS5003C2.5	3 x 2.5	1/1.78	1/1.78	0.8	1.0	10.1	195
HFS5004C1.5	4 x 1.5	1/1.38	1/1.38	0.7	1.0	9.2	140

NOTE: More sizes available in the future or on request

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

#### FIRESURE 500 BENEFITS

Our Firesure 500 cable has been designed for easier stripping whilst retaining the benefits of a helically wrapped design. The Firesure 500 design consists of a specially formulated single co-polymer metallic tape. The tape adheres to the sheath so upon stripping the sheath the tape is also removed.

However, other leading manufacturers of this type of design use a 'longitudinally applied tape'. These longitudinal designs mean that the metallic tape required is simply folded along the inner conductors with a minimum 1mm tape overlap. Firesure 500 was designed to still incorporate a 'helically' applied metallic tape. This helically applied tape design means that the tape is continuously wrapped around the conductors with a minimum tape overlap of 20%.

The sheathing material of Firesure 500 is 'pressure extruded' as opposed to 'tubed extruded'. This means that rather than having the cores loosely placed within the sheath, the sheathing material is pressured onto the cores to fill interstices to allow a compact and solid cable.

The above features allows for the following key performance benefits, whilst still competing with the more electrician friendly termination process of removing the sheath and tape simultaneously.

#### FIRESURE 500 KEY BENEFITS IN COMPARISON TO OTHER FIRE PERFORMANCE CABLES

- TAPE IS ADHERED TO THE SHEATH (Allows tape and sheath to be removed simultaneously)
- SUPERIOR EARTH CONTINUITY (Pressured sheath allows better contact of tape and CPC)
- ENHANCED RESISTANCE TO CABLE KINKS (Subsequently protecting cables performance)
- EXTREMELY ROBUST/DURABLE DESIGN (Pressured sheath leaves fewer gaps within cable)
- SMALLER OVERALL DIAMETER (Pressured sheath results in more compact cable)
- PREVENTS TRANSMISSION OF SMOKE AND DANGEROUS GASES THROUGH THE CABLE (Due to tightly pressured sheath resulting in minimal air gaps within the cable)



# FIRE PERFORMANCE CABLE

Manufactured to BS7629-1 Table 2

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 IET Wiring Regulations.

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

2 CORE 3 CORE 4 CORE









#### 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 60331-21 (950°C)

IEC 60332-3-24

EN 50200:2015 (PH120)

BS8434-2 (120 minutes)

BS 5839-1 Clause 26.2e (Enhanced)

#### RELEVANT STANDARDS:

BS EN 60332-1-2 (Vertical flame propagation)

BS EN 60754-1 (Emission of acid gas)

BS EN 61034-2 (Smoke density)

BS EN 60332-3-24 Cat C (Vertical Flame Propagation)

#### 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)

		2 C	ore			3 0	ore			4 C	ore	
Size (mm²)	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.

#### **Dimensional Details:**

Reference Number	Number and nominal cross sectional area of conductors (mm²)	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	ТВА
HFSP3C1.5	3 x 1.5	1/1.38	1 / 1.38	0.7	0.9	10.0	ТВА
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	ТВА
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

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

# FIRESURE PLUS BENEFITS

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)



# FIRE PERFORMANCE CABLE

Manufactured to BS 8592 Table 2

Plain Annealed Copper Conductors / Mineral Ceramic (Mica) Tape / Cross Linked Low Smoke Non Halogen (LSNH) Insulation. 450/750V

Conductor: Plain Annealed Copper Class 2 to BS EN 60228

Fire Resistant Tape: Mineral Ceramic (Mica)

**Insulation**: Cross Linked 90°C Thermosetting LSNH Type EI5 to BS EN 50363-5 / BS8592 **Current Ratings:** For current ratings refer to table 4E1 of BS7671 IET Wiring Regulations.

These cables are suitable for use in fixed installations in industrial areas, buildings and similar applications, where the maintenance of power supply during a fire is required for a defined period of time.

Particularly suitable for locations where a defined level of resistance to fire and a low level of emission of smoke and corrosive gases are required when the cable is affected by fire or burning. For use where special fire performance is necessary or where local conditions or regulations require increased levels of public safety.



(Other colours available on request)







#### FIRE PERFORMANCE:

IEC 60331-3

(Resistance to fire with shock, 2 hour rated (120 minutes)

#### BS6387:2013

(Category C - Resistance to fire alone, 3 hours at 950°C)

#### BS6387:2013

(Category W - Resistance to fire with water spray)

#### BS6387:2013

(Category Z - Resistance to fire with mechanical shock)

#### **Dimensional Details:**

Reference Number	Nominal cross sectional area of conductor (mm²)	Nominal stranding of conductor (mm)	Nominal radial thickness of insulation (mm)	Approximate Overall Diameter (mm)	Approximate weight (kg/km)	
FS1 1.5	1.5	7 / 0.53	0.7	3.4	23	
FS1 2.5	2.5	7 / 0.67	0.8	4.0	35	
FS1 4.0	4.0	7 / 0.85	0.8	4.6	52	
FS1 6.0	6.0	7 / 1.04	0.8	5.2	71	
FS1 710	10.0	7 / 1.35	1.0	6.5	115	
FS1 716	16.0	7 / 1.70	1.0	7.6	175	
FS1 725	25.0	7 / 2.14	1.2	9.4	265	
FS1 735	35.0	7 / 2.52	1.2	10.5	360	
FS1 750	50.0	19 / 1.78	1.4	12.4	500	
FS1 770	70.0	19 / 2.14	1.4	14.1	670	
FS1 795	95.0	19 / 2.52	1.6	16.4	945	
FS1 8120	120	37 / 2.03	1.6	17.9	1215	
FS1 8150	150	37 / 2.25	1.8	19.9	1475	
FS1 8185	185	37 / 2.52	2.0	22.1	1790	

NOTE: 1.5mm² to 70mm² are manufactured to BS8592:2016 95mm² to 185mm² are manufactured 'Generally to BS8592:2016' and are NOT BASEC approved Weights and dimensional figures are provided as an approximate guide only

## FIRESURE 1 BENEFITS

Firesure 1 is a Fire Resistant Single Core Cable manufactured by Doncaster Cables in the United Kingdom and is for use in emergency safety circuits to maintain circuit integrity under fire conditions.

Firesure 1 has obtained approval from the British Approvals Service for Cables (BASEC).

The cables are certified as fire resistant through compliance to BS8592:2016 (up to and including 70mm²). BS8592:2016 includes fire testing in accordance with IEC 60331-3, this test specifies that the cables maintain circuit integrity under fire conditions for 120 minutes (2 hour rating).

In addition to BS8592:2016 requirements, Firesure 1 has been tested in accordance with BS6387:2013 and achieved rating 'CAT CWZ'. Cat C = resistance to fire alone, 3 hours at 950°C. Cat W = Resistance to fire with water spray. Cat Z = Resistance to fire with mechanical shock).

Our Firesure 1 Range is designed for laying in metallic conduit or in cable trunking where electrical circuit integrity under fire circumstances is of the upmost importance.

Firesure 1 is tested in accordance with BS EN 60754-1 (determination of halogen acid gas content) – as there is no halogen or acidic gas emission during fire/burning conditions, any sensitive equipment in surrounding areas are not affected adversely.

Firesure 1 is tested in accordance with BS EN 61034-2 (measurement of smoke density of cables burning under defined conditions) – low smoke generation allows better visibility in fire/burning conditions. This increased visibility can be essential to allow emergency evacuations and to help fire fighters in any rescue operations.

### Firesure Plus certification





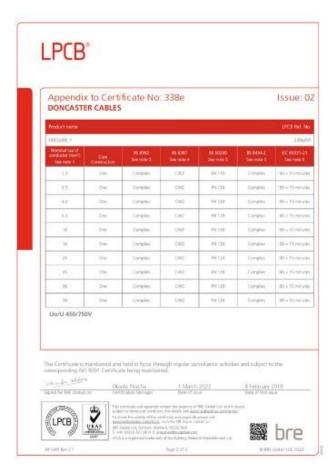
# Firesure 500 certification



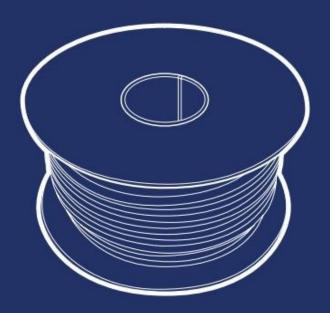


### Firesure 1 certification









# The British Cable Company You Can Trust













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