Manufactured to BS 7629-1 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  
**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**

<table>
<thead>
<tr>
<th>2 CORE</th>
<th>3 CORE</th>
<th>4 CORE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MINIMUM OPERATING TEMPERATURE**  
-15°C

**MAXIMUM OPERATING TEMPERATURE**  
70°C

**MINIMUM BENDING RADIUS**  
6xØ

---

The British Cable Company You Can Trust

Millfields Industrial Estate, Arksey Lane, Bentley, Doncaster, DN5 0SJ, United Kingdom  
t: 01302 821700  f: 01302 821701  e: sales@doncastercables.com  
www.doncastercables.com
FIRE PERFORMANCE CABLE

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 (Standard 60)
- EN 50200:2015 Annex E (30 minutes)
- BS 5839-1 Clause 26.2d (Standard)

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:

<table>
<thead>
<tr>
<th></th>
<th>2 Core</th>
<th>3 Core</th>
<th>4 Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (mm²)</td>
<td>1.5</td>
<td>2.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Recommended Clip (DC)</td>
<td>30</td>
<td>34</td>
<td>32</td>
</tr>
<tr>
<td>Maximum Horizontal Clipping Distance</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Maximum Vertical Clipping Distance</td>
<td>400</td>
<td>400</td>
<td>400</td>
</tr>
</tbody>
</table>

Weight and dimensional information is provided as an approximate guide only.
## Dimensional Details:

<table>
<thead>
<tr>
<th>Reference Number</th>
<th>Number and nominal cross sectional area of conductors (mm²)</th>
<th>Nominal stranding of conductor (mm)</th>
<th>Nominal stranding of CPC (mm)</th>
<th>Nominal radial thickness of insulation (mm)</th>
<th>Nominal radial thickness of sheath (mm)</th>
<th>Nominal Overall Diameter (mm)</th>
<th>Approximate weight (kg/km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFS5002C1.5</td>
<td>2 x 1.5</td>
<td>1/1.38</td>
<td>1 / 1.38</td>
<td>0.7</td>
<td>0.9</td>
<td>7.8</td>
<td>95</td>
</tr>
<tr>
<td>HFS5002C2.5</td>
<td>2 x 2.5</td>
<td>1/1.78</td>
<td>1/1.78</td>
<td>0.8</td>
<td>1.0</td>
<td>8.9</td>
<td>140</td>
</tr>
<tr>
<td>HFS5003C1.5</td>
<td>3 x 1.5</td>
<td>1/1.38</td>
<td>1/1.38</td>
<td>0.7</td>
<td>0.9</td>
<td>8.3</td>
<td>120</td>
</tr>
<tr>
<td>HFS5003C2.5</td>
<td>3 x 2.5</td>
<td>1/1.78</td>
<td>1/1.78</td>
<td>0.8</td>
<td>1.0</td>
<td>10.1</td>
<td>195</td>
</tr>
<tr>
<td>HFS5004C1.5</td>
<td>4 x 1.5</td>
<td>1/1.38</td>
<td>1/1.38</td>
<td>0.7</td>
<td>1.0</td>
<td>9.2</td>
<td>140</td>
</tr>
</tbody>
</table>

NOTE: More sizes available in the future or on request
Weight and dimensional information is provided as an approximate guide only.
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)
Certificate of Product Approval
Certificate Number: 338c Issue: 02

Doncaster Cables
Millfields Industrial Estate
Arksey Lane
Bentley
Doncaster
South Yorkshire
DN5 0SJ

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 500
See Certificate Appendix for details

Standard(s) (see Appendix for details)
BS 7629-1:2015 (STANDARD 60)
BS 6387:2013 (Category CWZ)
EN 50200:2015 (Class PH120)
EN 50200:2015 Annex E
BS 5839-1:2002+A2:2013 (Clause 26.2d)

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

Damien Ward
Certification Scheme Manager
19 December 2016

Signed for LPCB
05 October 2011

This certificate and appendix remain the property of BRE Global Ltd and is issued subject to terms and conditions for details visit www.redbooklive.com/terms.

To check the validity of this certificate and appendix please visit www.redbooklive.com/check, scan the QR tag or contact us.

LPCB is part of BRE Global Ltd, Garston, Watford, WD25 9XX
T: +44 (0)333 321 8811 F: +44 (0)1923 664603 E: enquiries@breglobal.com

© BRE Global Ltd, 2015
### Appendix to Certificate No: 338c

**Issue: 02**

**Doncaster Cables**

<table>
<thead>
<tr>
<th>Product name</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRESURE 500</td>
<td>338c/01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 7629-1</th>
<th>BS 6387</th>
<th>EN 50200</th>
<th>EN 50200 Annex E</th>
<th>BS 5839-1 Clause 26.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0(1)</td>
<td>2</td>
<td>STANDARD 60(2)</td>
<td>C, W, Z</td>
<td>PH120</td>
<td>30min(3)</td>
<td>Standard (4)</td>
</tr>
<tr>
<td>1.5(1)</td>
<td>2,3 &amp; 4</td>
<td>STANDARD 60(2)</td>
<td>C, W, Z</td>
<td>PH120</td>
<td>30min(3)</td>
<td>Standard (4)</td>
</tr>
<tr>
<td>2.5(1)</td>
<td>2,3 &amp; 4</td>
<td>STANDARD 60(2)</td>
<td>C, W, Z</td>
<td>PH120</td>
<td>30min(3)</td>
<td>Standard (4)</td>
</tr>
</tbody>
</table>

**Uo/U 300/500V**

**Notes:**

1. Solid conductor only.
2. In meeting the requirements of BS 7629-1:2015, the FIRESURE 500 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.
3. The duration of 60 min when tested in accordance with BS 8434-2:2003+A2:2009 is achieved by 15 min for the fire and impact phase and an additional 15 min for the fire, impact and water phase as described in Clause 26.2d of BS 5839-1:2013.
4. The FIRESURE 500 Cables listed conform to BS 7629-1:2015, met Class PH120 when tested in accordance with EN 50200:2015 and met the 60 min duration when tested in accordance with EN 50200:2015 Annex E and hence met the requirements for a standard fire resistant cable as described in Clause 26.2d 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**  
Certification Scheme Manager  
19 December 2016  
05 October 2011