### 3x2.5 Power Cable + 12C Fiber Optic Cable

**SWB Fire Resistant Composite Cable**

#### Construction:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3x2.5mm² Power Cable</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Conductor</strong></td>
<td>7/0.67mm Stranded bare copper wire</td>
</tr>
<tr>
<td><strong>Fire barrier</strong></td>
<td>Mica tape wrapped copper conductor</td>
</tr>
<tr>
<td><strong>Insulation</strong></td>
<td>XLPE. Thickness is 0.7mm. Outer diameter 4.6-4.7mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>12C Optic Fiber Cable, G652D (around central member)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No of fibers in loose tube</strong></td>
</tr>
<tr>
<td><strong>Loose tube</strong></td>
</tr>
<tr>
<td><strong>Fire barrier</strong></td>
</tr>
</tbody>
</table>

#### Element Assembly

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central Strength Member</strong></td>
<td>1.9mm FRP central strength member with PE/PVC coating if necessary</td>
</tr>
<tr>
<td><strong>Strength member</strong></td>
<td>Aramid yarn helically is applied over cable core.</td>
</tr>
<tr>
<td><strong>Inner Jacket</strong></td>
<td>LSZH, thickness is 1.0mm</td>
</tr>
<tr>
<td><strong>Armor</strong></td>
<td>SWB</td>
</tr>
</tbody>
</table>
Sheath | LSZH, thickness is 1.8mm, nominal outer diameter 18.2±1.0mm
---|---
Sheath Color | Black

### Optical Characteristics

**12C Optic Fiber Cable, G652D (around central member)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Standard Single Mode Fiber per ITU-T G.652D</th>
<th>Non-zero Dispersion Shifted fiber per ITU-T G.655</th>
<th>Non-zero Dispersion Shifted fiber per ITU-T G.656</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber Code</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Attenuation, Loose Tube Cables</td>
<td>@1310nm</td>
<td>≤0.35</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>@1550nm</td>
<td>≤0.22</td>
<td>≤0.22</td>
<td>≤0.22</td>
</tr>
<tr>
<td></td>
<td>@1625nm</td>
<td>≤0.25</td>
<td>≤0.26</td>
<td>≤0.26</td>
</tr>
<tr>
<td>Attenuation, Tight Buffer or Semi-Tight Cables</td>
<td>@1310nm</td>
<td>≤0.38</td>
<td>N/A</td>
<td>dB/km</td>
</tr>
<tr>
<td></td>
<td>@1550nm</td>
<td>≤0.28</td>
<td>N/A</td>
<td>dB/km</td>
</tr>
<tr>
<td>Chromatic Dispersion</td>
<td>between 1260 and 1360nm (O Band)</td>
<td>≤3.5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>between 1460 and 1530nm (S Band)</td>
<td>N/A</td>
<td>N/A</td>
<td>2.0-7.0</td>
</tr>
<tr>
<td></td>
<td>between 1530 and 1565nm (C Band)</td>
<td>≤18</td>
<td>1.0-10.0</td>
<td>7.0-10.0</td>
</tr>
<tr>
<td></td>
<td>between 1565 and 1625nm (L Band)</td>
<td>≤22</td>
<td>7.0-12.0</td>
<td>10.0-14.0</td>
</tr>
<tr>
<td>Zero Dispersion Wavelength</td>
<td>1310±11</td>
<td>1530-1560</td>
<td>1460-1565</td>
<td>nm</td>
</tr>
<tr>
<td>Zero Dispersion Slope</td>
<td>0.093</td>
<td>0.093</td>
<td>0.093</td>
<td>ps/(nm2.km)</td>
</tr>
<tr>
<td>Point Discontinuity at 1300nm &amp; 1550nm</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>dB</td>
</tr>
<tr>
<td>Mode Field Diameter</td>
<td>@1300nm</td>
<td>9.3±0.5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>@1550nm</td>
<td>10.4±0.8</td>
<td>8.5±0.6</td>
<td>9.0±0.5</td>
</tr>
<tr>
<td>Cable Cut-off Wavelength</td>
<td>≤1260</td>
<td>≤1450</td>
<td>≤1450</td>
<td>nm</td>
</tr>
<tr>
<td>PMD (Individual fiber)</td>
<td>≤0.2</td>
<td>≤0.2</td>
<td>≤0.2</td>
<td>ps/km1/2</td>
</tr>
<tr>
<td>Cladding Diameter</td>
<td>125±1</td>
<td>125±1</td>
<td>125±1</td>
<td>um</td>
</tr>
</tbody>
</table>
The fibers contain no splices.

**Mechanical Properties:**

**Tensile load:**
- Operating: 600N
- Installation: 1500N

**Bending radius:**
- Operating: 12.5×OD
- Installation: 25×OD

**Compressive load:**
- Short term: 1000N
- Long term: 300N

**Fire Characteristics:**

**Fire Resistance:** IEC 60331

**Flame Propagation:** IEC60332

**Low Smoke Capacity:** IEC61034-1/2

**Halogen Free:** IEC60754-1/2

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.