

Part #s	Length	# of Pairs	AWG	Outer Diameter	Weight
RP6600100M	100m (328')	2	22	0.32"	26 lbs.
RP6600300M	300m (984')	2	22	0.32"	72 lbs.



### Description:

- CI 2 Hour Fire-Rated Shielded Communication Cable
- IE SF/UTP 2x2xAWG22/1 Cable with Circuit Integrity Behavior
- Rated for both horizontal and vertical runs
- Tested to 1,742° F

### Applications:

- Campus Wiring
- Riser Applications
- Horizontal Backbone Wiring
- Building Control Systems
- Intelligent Fire Alarm Systems
- Circuit integrity structured wiring alarm cable compatible with all known connection systems to EN 50173
- IEEE 802.3: 10Base-T; (100Base-T <75m), IEEE 802.5 16 MB; ISDN; TPDDI; ATM RS485 (10Mbps)

### Construction:

Conductor	Bare copper wire, Ø 0.65 mm (AWG 22) 0.332mm <sup>2</sup>
Insulation	PE/Silicone Rubber <sup>1</sup> , Ø PE 1.0mm and Silicone Rubber 1.7 mm
Twisting	2 cores to the pair
Cable Lay Up	2 pairs to the core
Fire Protection Wrapping	Glass tape
Screen	Stranded drain wire + Al-PET-foil + copper braid, tinned
Sheath	Halogen free, flame retardant thermoplastic sheathing compound acc. to EN 50290-2-27, Ø 8.2 mm
Color	Red RAL 3000

**Note<sup>1</sup>** – Silicone rubber insulation especially for circuit integrity cables

### Compliance:

- Approved by LU (London Underground) – Independently tested by BRE Global
- Fire resistant BS5839-1 (clause 26.2e); BS8434-2; BSEN 50200
- Flame retardant BS4066 part 3; Smoke emission BSEN 20568
- LUL-Flammability, smoke and fume 2-01001-002
- LU STANDARD e4156 part 1 – Approval ref TLL-ENG-MATTS-0076 (dated 21/06/2007)
- Generally to ISO/IEC 11801: 95, EN 50173:95; EN 50288-1
- Generally categorized between Cat 3 and Cat 5 (see notes <sup>1, 2, 3, 4, 5</sup>)
- Passes – ISO/IEC 11801 class D (95); TIA Cat 5 Ch (TSB67); ISO/IEC 11801 Class C

**Mechanical Properties:**

Bending Radius	Without load: $\geq 32.5$ mm With load: $\geq 65$ mm
Temperature Range	During operation: $-20^{\circ}\text{C}$ to $+60^{\circ}\text{C}$ During installation: $0^{\circ}\text{C}$ to $+50^{\circ}\text{C}$

**Electrical Properties: at  $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$**

Loop Resistance		$\leq 110 \Omega / \text{km}$
Resistance Unbalance		$\leq 2\%$
Insulation Resistance	(500 V) 1 minute	$\geq 2000 \text{ M } \Omega \cdot \text{km}$
Mutual Capacitance	At 800 Hz	Nom. nF/km
Capacitance Unbalance	(Pair/Ground)	$\geq 1600 \text{ pF/km}$
Characteristic Impedance	(At 10) MHz	$(100 \pm 15) \Omega$
Nominal Velocity of Propagation		ca. 57%
Test Voltage	(DC, 1 min) core/core and core/screen	1000 V
Transfer Impedance	At 10 MHz	$5 \text{ m } \Omega / \text{m}$

**Electrical Data (Nominal): acc. to Cat.5 (at  $20^{\circ}\text{C}$ )**

**Flame Resistance:**

Low Smoke:	BSEN 20568, IEC 61034-2, BSEN 20568
Halogen Free:	IEC 60754-1&2
Flame Retardant:	IEC 60332-1, IEC 60332-3-24, BS4066 part 3, UL 1581 VW 1
Circuit Integrity:	BS5839-1 2002 (clause 26.2e); BS8434-2; BSEN 50200, IEC60331

BS5839 enhanced 3 in 1 test                      PASSED  
 Continued data operation @  $1,742^{\circ}\text{F}$         > 2 hours  
 BS6387 CWZ    PASSED  
 BS EN 50200 (IEC60331)                          >3 hours

**Conduit Fill:**

Raceway/ Conduit Size	Max # of 22 AWG LU 2 Pair
1/2"	1
3/4"	2
1"	4
1-1/4"	7
1-1/2"	7
2"	7

**Note<sup>2</sup>** - Structured cabling Characteristic Impedance is normally within  $(100 \pm 5) \Omega$ , due to the insulation system this is not achievable all the time  
**Note<sup>3</sup>** - Structured cabling systems minimum for  $c=65\%$ , due to the insulation (PE + Sil Rbr) system this is not achieved, that is  $nvp 0,57$   
**Note<sup>4</sup>** - Cat 5 (95) specification: not the Cat5e of today i.e. gigabit ethernet  
**Note<sup>5</sup>** - When used in a 100m Channel, 90m + 10m patch cords, the Class D (95) is fit for some purposes: it is advisable to approve a 100m sample and perform a trial on the system before installation