

Category 6 F/UTP Low Smoke Zero Halogen Cable

V.3.0

FibreFab's Category 6 F/UTP LSZH cables are designed to deliver a robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres.

Each Category 6 F/UTP LSZH exceed the minimum specified performance for Category 6 F/UTP cables and support all CLASS E applications as defined within ISO/IEC 11801 (2nd Edition): 2010 such as 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

Construction

Conductor	A single strand of 23AWG (0.574mm) solid copper
Insulation	Polyethylene
Cable	8 insulated wires formed into 4 pairs. The 4 pairs are subsequently cabled together around a polyethylene cross-filler to form a cohesive unit.
SCREEN	An aluminised polyester tape screen applied with a 15% minimum overlap (The aluminium side is in continuous contact with the tinned copper drain wire)
Sheath	A uniform layer of Violet coloured Low Smoke Zero Halogen (LSZH) compound (RAL 4005)
Diameter	7.1mm

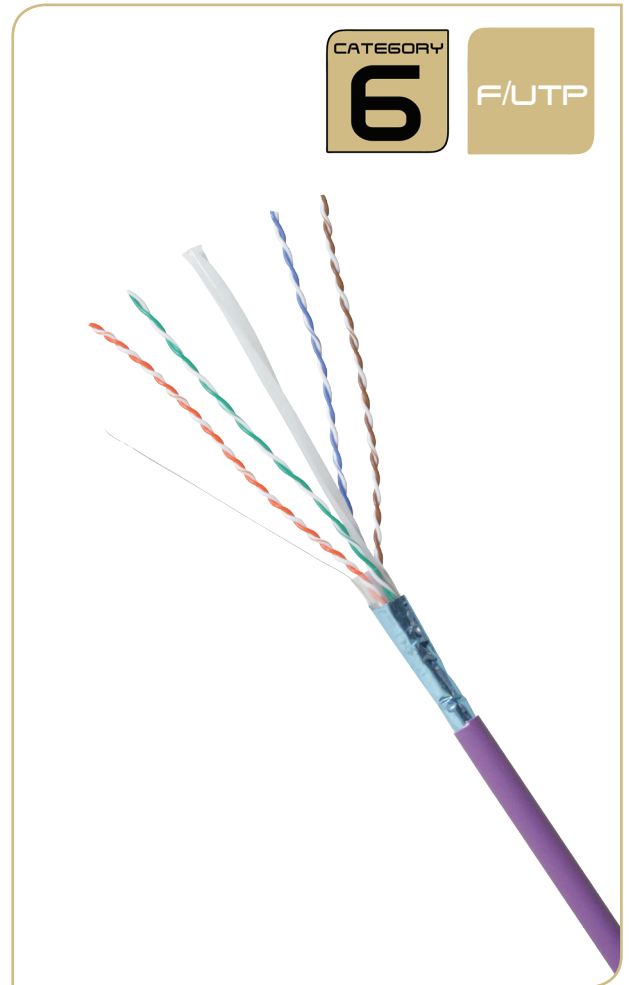
Applicable Standards

The Category 6 F/UTP LSZH cable is manufactured and tested directly in accordance with the major industry standards:

- > **ISO/IEC 11801 2nd Edition**
- > **ANSI/TIA 568-C.2**
- > **EN 50173**
- > **IEC 61156-5**
- > **EN 50288-3-1**

Other Relevant Information

- ▶ **RoHS compliant 2002/95/EC**
- ▶ **REACH / SVHC compliant regulation (EC) No. 1907/2006**
- ▶ **Pair colour code:**
 Pair 1: Orange and White/Orange
 Pair 2: Blue and White/Blue
 Pair 3: Brown and White/Brown
 Pair 4: Green and White/Green



Electrical properties at 20°C

Characteristic Impedance (1-100MHz)	100 ± 15Ω
DC loop resistance	≤ 19.0Ω/100m
Resistance unbalance	≤ 2%
Capacitance unbalance to earth	≤ 1600 pF/km
Delay Skew	≤ 40ns/100m @ 100MHz
Nominal velocity of propagation	67%
Propagation delay (Nominal)	≤ 534ns/100m
Test voltage (d.c. for 1 minute) Conductor/Conductor	1000V
Insulation resistance (500V d.c)	≥ 500MΩ.km
Transfer Impedance	≥ 55dB

Transmission line performance at 20°C

Frequency Mhz	Attenuation Db/100m	42.0Next Db38.3	Acr Db/100m	Psnext Db	Elfext Db/100m	Pselfext Db/100m	Return loss
1	2.1	74.0	71.9	72.0	68	65	20
4	3.8	65.3	61.5	63.3	56	53	23
10	6.0	59.3	53.3	57.3	48	45	25
16	7.6	56.0	48.4	54.0	44	41	25
20	9.3	45.8	36.5	42.8	42	39	25
62.5	17.0	38.4	21.4	35.4	32	29	21.5
100	22.0	35.3	13.3	32.3	28	25	20.1
125	22.5	43.0	20.5	41.0	26	23	19.5
155.5	25.4	42.0	16.6	40.0	24	21	18.8
250	33.0	38.3	5.3	32.3	20	17	17.3

Fire Performance

Category 6 F/UTP LSZH cables exceed the requirements of:

- > **IEC 60332-1-2**
- > **IEC 60754-2**
- > **IEC 61034**

Mechanical Characteristics

Temperature Range		Minimum Bend Radii	
Operation	-20°C to + 60°C	Installation	8 x Cable Diameter
Installation	0°C to +50°C	Installed	4 x Cable Diameter
Storage	-20°C to + 70°C		
Maximum Tensile Force			
During Installation	100N		

Ordering Information

DESCRIPTION	PART NO.
Category 6 F/UTP LSZH 305m Box	FTP6305LSZH
Category 6 F/UTP LSZH 500m Reel	FTP6500LSZH