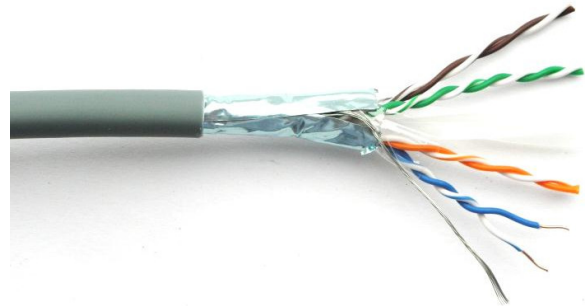


## GigaTrue® Cat6 LSZH F/UTP Bulk Cable

Shielded cable for long runs in electrically noisy environments

- Meets Category 6 standards.
- Ideal for carrying data, audio, video, and for use in 10 / 100 / 1000-Mbps networks.
- Features aluminium Mylar® tape foil shield to protect against noise and EMI/RFI interference.
- Solid Copper Conductors.
- 23 AWG.
- **WARRANTY – Guaranteed for life!**



Our Low Smoke Zero Halogen cable is ideal for public areas, transport systems, factories, and any other areas where the protection of people and equipment from toxic and corrosive gases is essential. The zero halogen jacket has excellent fire and safety characteristics, giving off less smoke and emitting very low gases. This high quality solid core bulk cable is ideal for Ethernet, Fast Ethernet, Gigabit Ethernet, Power over Ethernet (PoE) and other demanding structured cabling applications.

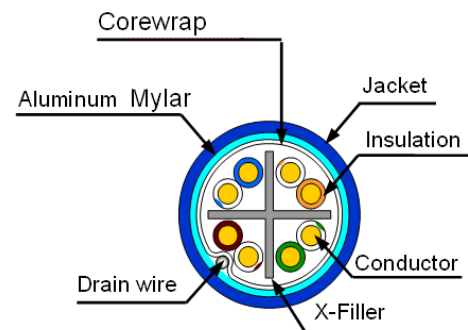
This cable is 3<sup>rd</sup> party tested and complies with a wide range of electrical and safety standards including ISO/IEC11801, CENELEC EN50173-1:2011, and ANSI/TIA-568-C2 making it appropriate for almost every indoor application.

This cable comfortably exceeds the Cat6 requirements for insertion loss, crosstalk, and return loss. Details are published on the following pages.

The cable is tested as a full channel solution and is especially compatible with the range of shielded GigaTrue jacks, Patch cables, and patch panels.

### Technical Specification

Environmental:	RoHS / RoHS2 Compliant
CE:	LVD (2006/95/EC) , RoHS2(2011/65/EC)
Construction:	23 AWG Solid Bare Copper Twisted-Pair Conductors Polyethylene Insulation, PE X-Filler F/UTP Overall Foil Screen with Drain Wire, LSZH Jacket



**Applicable Standards:**

## Electrical:

2.2 edition ISO/IEC 11801, Cat.6  
CENELEC EN 50173-1:2011, Cat.6  
ANSI/TIA-568-C.2, Cat.6  
2nd edition IEC61156-5, Cat.6-Level 2, Type 2, Grade 2  
CENELEC EN 50288-6-1

## Safety:

CENELEC EN 60332-1-2 / IEC 60332-1-2  
CENELEC EN 50268-1 / IEC 61034-1  
CENELEC EN 50268-2 / IEC 61034-2, inc1. Amendment 1  
CENELEC EN 50267-2-3 / IEC 60754-2

## Materials/Construction :

CENELEC EN 60811-1-1, clause 9.2 / IEC 60811-1-1, clause 9.2.7  
CENELEC EN 60811-1-3, clause 10 / IEC 60811-1-3, clause 10  
CENELEC EN 60811-3-1, clause 9.2 / IEC 60811-3-1, clause 9.2  
CENELEC EN 60811-1-2, clause 8.1 / IEC 60811-1-2, clause 8.1  
CENELEC EN 50290-2-27, CENELEC EN 50290-2-23

**Physical**

Conductors:	Material	23AWG Solid Bare Copper
	Diameter	0.550±0.02 mm
Insulation:	Material	HDPE
	Diameter	1.08±0.02mm
Shielding:	Filler:	PE Filler (0.7 x 5.6mm)
	Mylar Tape	PET (25 x 0.025mm)
	Drain Wire	Solid Tinned Copper (1/0.48mm)
	Al-Mylar Tape	Laminated Aluminum-Polyester (23 x 0.063mm)
Jacket:	Material	LSZH
	Diameter	7.2±0.2mm
	Colour	Grey, Blue, Green, Red, Yellow, Purple
Packaging:	Wooden Spool	

Temperature:            Installation    -20°C up to +60°C  
                                  Operation        0°C up to +60°C

Min Bend Radius:     Installation    6 x overall diameter  
                                  Operation        4 x overall diameter

Max Pulling Tension: 90 N

Flame Retardance:    IEC 60332-1-2

### Electrical Characteristics at 20°C

Characteristic Impedance at 100 MHz:            100 ± 15 Ohm

Maximum Conductor DC Resistance:            93.8 Ohm/km

Mutual Capacitance:                                56 nF/km

Maximum Capacitance:                            330pF/100m (Unbalanced Pair to Ground)

Maximum Propagation Delay:                    536 ns/100m

Maximum Delay Skew:                             40 nS/100m

Max. Operating Voltage:                         300 V rms

### Electrical Performance

Frequency (MHz)	IL MAX. (dB/100m)	NEXT MIN. (dB)	ACR MIN. (dB)	PS. NEXT MIN. (dB)	PS. ACR MIN. (dB)	ACRF MIN. (dB/100m)	PS. ACRF MIN. (dB/100m)	R.L. MIN. (dB)
1	2.0	76.3	74.3	74.3	72.3	69.8	66.8	20.0
4	3.8	67.3	63.5	65.3	61.5	57.7	54.7	23.0
8	5.3	62.8	57.3	60.8	55.3	51.7	48.7	24.5
10	6.0	61.3	55.3	59.3	53.3	49.8	46.8	25.0
16	7.6	58.3	50.7	56.3	48.7	45.7	42.7	25.0
20	8.5	56.8	48.3	54.8	46.3	43.7	40.7	25.0
25	9.6	55.3	45.7	53.3	43.7	41.8	38.8	24.3
31.25	10.7	53.9	43.2	51.9	41.2	39.9	36.9	23.6
62.5	15.4	49.4	34.0	47.1	32.0	33.8	30.8	21.5
100	19.8	46.3	26.5	44.3	24.5	29.8	26.8	20.1
155	25.1	43.5	18.4	41.5	16.4	25.9	22.9	18.8
200	29.0	41.8	12.8	39.8	10.8	23.7	20.7	18.0
250	32.8	40.3	7.5	38.3	5.5	21.8	18.8	17.3
300	36.4	39.2	2.8	37.2	0.8	20.2	17.2	16.8
400	43.0	37.3	NA	35.3	NA	17.7	14.7	15.9

<u>Item</u>	<u>Code</u>
Cat6 LSZH Cable F/UTP Bulk solid Conductor 305m spool	
Purple	EYNLSF648AW-PB-1000
Blue	EYNLSF641AW-PB-1000
Red	EYNLSF643AW-PB-1000
Green	EYNLSF642AW-PB-1000
Yellow	EYNLSF644AW-PB-1000

**Black Box Explains****LSZH (Low Smoke Zero Halogen)**

The European market is demanding that cables used in LANs, WANs, etc. meet this specification.

IEC60332-1 governs the Flame Retardant Grade specifications in reference to LSZH cables. Essentially, the compound used in manufacturing cables

Meeting the above specification reduces the amount of dangerous/poisonous gases in case of fire. The main difference in specifications between IEC60332-1 versus UL 1581, UL 1666 and UL 910 is that the cable under the IEC spec can continue to burn while still emitting very low gases. The UL specs demand that the flame be extinguished, but it can still emit dangerous/poisonous gases.