



## Category 6A S/FTP - Shielded Foiled Twisted Pair PE Cable

The Category 6A Shielded Foiled Twisted Pair (S/FTP) PE cable with 4 x 2 x 23 AWG copper wire structure fully complies with ISO/IEC and TIA/EIA 568 standards. It is designed for use in horizontal network installations up to 500MHz. OptronicsPlus Cat6a S/FTP cable exceeds Cat6A/Class EA performance requirements and support 10G-BASE-T, 2G FCBASE-T, 4G FC-BASE-T and 1000Base-T applications. It is available with flame retardant PE outer jacket.

### Features

- 23 AWG conductors
- Exceeds Cat6A performance requirements
- ISO/IEC 11801 and TIA/EIA568 compliant
- Available with PE outer jacket
- Supplied in 305 or 500m reels
- Printed metre marks

### Applications

- Cat6a/Class EA up to 500Mhz applications
- 1000BASE-T, 2G FCBASE-T and 10GBASE-T applications
- Horizontal network installations
- Backwards compatible with Cat 5e and Cat6 distribution systems

## Specifications

### CONSTRUCTION

Conductor	23AWG solid bare copper (0.580 ±0.02 mm)
Insulation	
Material	FOPE
Nom. OD.	1.38±0.1 mm
Minimum Thickness	0.39mm
Outside-Tape Wrap Material	AL-MYLAR
Braid Material	
Material	LMS
Nom. OD.	16/6/0.10 ± 0.01mm
Sheath	PE
Average Thickness	0.60 ±0.05 mm
Diameter	7.60mm ± 0.35mm
Colour	Optional

### PHYSICAL CHARACTERISTICS

Sheath Normal Temp Tensile Strength (Mpa)	≥14.0
Sheath Normal Temp Elongation (%)	≥600
Insulation Normal Temp Tensile Strength (Mpa)	≥10
Insulation Normal Temp Elongation (%)	≥200
Aging Condition (°C×Hrs)	100°C±2°C, 24h, 7d
Sheath After Aging Tensile Strength (Mpa)	≥10.0
Sheath After Aging Elongation (%)	≥400
Temperature Rating (°C)	-20°C to +75°C
Cold Bend ( -20 ± 2°C × 4)	8 × Cable O.D. No visible cracks

### ELECTRICAL CHARACTERISTICS

Characteristic Impedance (Ω)	100±15
Propagation Delay (Ns/100m)	≤45
Direct Current Resistance [20°C(Ω/100m) Max]	9.5
Direct Current Resistance Unbalance (%) Max	Internal pair: 2%, Between pairs: 4%
Insulation Resistance (Mω Km)	≥5000
Mutual Capacitance of a Pair (Nf/100m)	Not required
Capacitance Unbalance (Pf/100m)	≤160

## Transmission Line Performance

FREQUENCY (MHZ)	RL ≥dB	ATT ≤dB	NEXT ≥dB	ACRF ≥dB	PS NEXT dB	PS ACRF dB
4	23.0	3.70	78.0	78.0	75.0	75.0
8	24.5	5.20	78.0	77.2	75.0	74.2
10	25.0	5.90	78.0	75.3	75.0	72.3
16	25.0	7.40	78.0	71.2	75.0	68.2
20	25.0	8.30	78.0	69.3	75.0	66.3
25	24.3	9.30	78.0	67.3	75.0	64.3
31.25	23.6	10.40	78.0	65.4	75.0	62.4
62.5	21.5	14.90	75.5	59.4	75.0	56.4
100	20.1	19.0	72.4	55.3	72.5	52.3
200	18.0	27.5	67.9	49.3	69.4	46.3
250	17.3	31.0	66.4	47.3	64.9	44.3
300	17.3	34.2	65.2	45.8	62.2	42.8
400	17.3	40.0	63.4	43.3	60.4	40.3
500	17.3	45.3	61.9	41.3	58.9	38.3

## Standards Compliance

- Class EA / Category 6A
- ISO/IEC 11801 2nd Edition
- ANSI/TIA/EIA-568-C.2
- EN 50173
- IEC 61156-5
- EN 50288-3-1
- IEC 60332-1-2
- ROHS
- REACH

## Ordering Information

DESCRIPTION	PART NUMBER
Category 6A S/FTP PE Cable Black - 305m Reel	OCC-6A-43-305
Category 6A S/FTP PE Cable Black - 500m Reel	OCC-6A-43-500

## Additional Images

