

SEMIFCABLE — Semi-Finished LAN Cable

CAT5e CAT6 And CAT6a Cores Ready For Jacketing

Semi-finished LAN cable is the twisted-pair core with its shielding, supplied before the outer sheath. Pair lay length, conductor diameter and shield construction are already produced and measured, so the finished cable's electrical performance is decided before it reaches your extruder. You apply the jacket, the print legend and the CPR or regional classification.

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Semi-Finished S/FTP CAT5e LAN Cable

S/FTP CAT5e is the most heavily shielded CAT5e construction we supply: every pair is wrapped in aluminium-polyester foil and the whole core sits inside a tinned copper braid, with the jacket left for your line. It is specified where motors, fluorescent lighting or HVAC equipment sit close to the cable route, and it is the core behind CPR-compliant shielded patch cable for airports, hospitals and rail projects.

Parameter	Value
Characteristic Impedance	100 ± 15 Ω
NEXT	≥ 45 dB @ 100 MHz
PSNEXT	≥ 43 dB
Return Loss	≥ 16 dB
Attenuation	≤ 22.0 dB/100m
DC Resistance	≤ 9.5 Ω/100m
Propagation Delay	≤ 538 ns/100m
Delay Skew	≤ 45 ns/100m
Core Outer Diameter	Approx. 5.4 – 6.2 mm without jacket
Reel Lengths	1,000 m / 2,000 m wooden drums
Packaging	PE-wrapped wooden reels or palletised rolls
Core Marking	Unprinted — for post-jacketing marking
MOQ	3,000 – 5,000 metres per order
Standards	TIA/EIA-568.2-D, ISO/IEC 11801 Class D, EN 50173

Full page: <https://semifcable.com/products/sftp-cat5e.html>

Semi-Finished FTP CAT5e LAN Cable

FTP CAT5e adds an overall aluminium-polyester foil around all four pairs plus a tinned copper drain wire, with the jacket left off. It is the middle option between plain UTP and fully braided S/FTP: enough shielding for cable trays that run beside power cable, without the cost of a braid. Core OD is about 5.2 to 5.8 mm and the construction is built for CPR-classified production in European markets.

Parameter	Value
Characteristic Impedance	100 ± 15 Ω
NEXT	≥ 45 dB @ 100 MHz
PSNEXT	≥ 43 dB
Return Loss	≥ 16 dB
Attenuation	≤ 22.0 dB/100m
DC Resistance	≤ 9.5 Ω/100m
Delay Skew	≤ 45 ns/100m
Propagation Delay	≤ 538 ns/100m
Core Outer Diameter	Approx. 5.2 – 5.8 mm without jacket
Standard Lengths	1,000 m / 2,000 m wooden drums

Packaging	PE-wrapped wooden reels or pallets
Marking	No jacket print — intended for OEM labelling
MOQ	Typically 3,000 – 5,000 metres per type

Full page: <https://semifcable.com/products/ftp-cat5e.html>

Semi-Finished FTP CAT6 LAN Cable

FTP CAT6 is four tightly twisted 23 AWG pairs under one aluminium-polyester foil, with a tinned copper drain wire and no outer sheath. It holds CAT6 performance to 250 MHz while giving the noise immunity that plain UTP cannot, and the round geometry is deliberately kept stable so the jacket extrudes evenly at high line speed. Typical finished products are CPR-classified LAN cable for European infrastructure work.

Parameter	Value
Characteristic Impedance	100 ± 15 Ω
NEXT	≥ 55 dB @ 100 MHz
PSNEXT	≥ 52 dB
Return Loss	≥ 20 dB
Attenuation	≤ 20.9 dB/100m
DC Conductor Resistance	≤ 9.38 Ω/100m
Delay Skew	≤ 44 ns/100m
Propagation Delay	≤ 535 ns/100m
Core Outer Diameter	Approx. 5.8 – 6.3 mm without jacket
Standard Lengths	1,000 m / 2,000 m wooden drums
Packaging	PE-wrapped wooden reels or palletised
Marking	None — for OEM post-processing printing
MOQ	Typically 3,000 – 5,000 metres per specification
Bandwidth	Consistent performance up to 250 MHz

Full page: <https://semifcable.com/products/ftp-cat6.html>

Semi-Finished U/FTP CAT6a LAN Cable

U/FTP CAT6a wraps each twisted pair in its own aluminium-polyester foil, with no overall braid and no outer jacket. That construction is what makes 10GBASE-T workable in bundled installations, because alien crosstalk is suppressed pair by pair rather than at the cable surface. It is supplied as core material for manufacturers who will apply PVC, LSZH or PE jacketing, colour marking and their own branding.

Parameter	Value
Characteristic Impedance	100 ± 15 Ω
NEXT	≥ 65 dB @ 100 MHz
PSNEXT	≥ 62 dB
Return Loss	≥ 20 dB
Attenuation	≤ 21.9 dB/100m
DC Resistance	≤ 9.38 Ω/100m
Propagation Delay	≤ 534 ns/100m
Delay Skew	≤ 44 ns/100m
Core Outer Diameter	~ 6.0 – 6.3 mm without outer jacket
Standard Lengths	1,000 m or 2,000 m reels, custom available
Packaging	Wooden drum, shrink-wrapped

Print Marking	Usually none — added during final jacketing
Outer Jacket	Not included

Full page: <https://semifcable.com/products/u-ftp-cat6a.html>

Semi-Finished S/FTP CAT6 LAN Cable

S/FTP CAT6 is the double-shielded core: each pair individually wrapped in aluminium-polyester foil of 25 µm or more, and the whole assembly inside a tinned copper braid at 60 to 80 percent coverage. It outperforms F/UTP and U/FTP where HVAC plant, generators or power runs share the route, and it is the core behind CPR fire-rated LAN cable for data centres and public buildings. Jacketing, printing and classification stay on your side.

Parameter	Value
Characteristic Impedance	100 ± 15 Ω
NEXT	≥ 55 dB @ 100 MHz
PSNEXT	≥ 52 dB
Return Loss	≥ 20 dB
Attenuation	≤ 20.9 dB/100m
DC Conductor Resistance	≤ 9.38 Ω/100m
Resistance Unbalance	≤ 5%
Propagation Delay	≤ 535 ns/100m
Delay Skew	≤ 45 ns/100m
Outer Diameter	~ 6.3 – 6.7 mm without jacket
Standard Reel Lengths	1000 m / 2000 m
Packaging	Wooden drums, PE film-wrapped
Core Marking	None — designed for post-extrusion branding
MOQ	Typically 5 – 10 km per specification

Full page: <https://semifcable.com/products/s-ftp-cat6.html>

Semi-Finished UTP CAT6 LAN Cable

The UTP CAT6 core carries four 23 AWG pairs in HDPE insulation, with an optional PE cross-web spline and no outer jacket. It is specified to 250 MHz under TIA/EIA-568.2-D and ISO/IEC 11801 Class E, and conductor diameter tolerance is held to within 0.01 mm so the geometry stays stable through jacketing. Buyers are LAN cable plants that finish, print and box the cable themselves.

Parameter	Value
Characteristic Impedance	100 ± 15 Ω
NEXT	≥ 55 dB @ 100 MHz
PSNEXT	≥ 52 dB
Return Loss	≥ 20 dB
Attenuation	≤ 20.9 dB/100m
DC Conductor Resistance	≤ 9.38 Ω/100m
Delay Skew	≤ 45 ns/100m
Propagation Delay	≤ 535 ns/100m
Conductor Diameter Tolerance	≤ ± 0.01 mm
Core Outer Diameter	~ 5.2 – 6.0 mm without jacket
Standard Length	1,000 m or 2,000 m reels
Packaging	Wooden drum, shrink-wrapped

Core Marking	Bare core, no printing
MOQ	3,000 – 5,000 metres per order
Compliance	TIA/EIA-568.2-D, ISO/IEC 11801, EN 50173, RoHS and REACH

Full page: <https://semifcable.com/products/utp-cat6.html>

Semi-Finished UTP CAT5e LAN Cable

The UTP CAT5e core is four HDPE-insulated pairs with controlled lay length and no outer jacket. It is bought by plants that jacket, print and package their own LAN cable, and it supports 100 MHz bandwidth and 1000BASE-T over 100 metres. Core OD runs about 4.6 to 5.2 mm, which is tight enough that a jacketing line can hold wall thickness at speed.

Parameter	Value
Characteristic Impedance	100 ± 15 Ω
NEXT (Near-End Crosstalk)	≥ 45 dB @ 100 MHz
PSNEXT	≥ 43 dB
Return Loss	≥ 16 dB
Attenuation	≤ 22.0 dB/100m
DC Resistance	≤ 9.5 Ω/100m
Delay Skew	≤ 45 ns/100m
Propagation Delay	≤ 538 ns/100m
Core Outer Diameter	Approx. 4.6 – 5.2 mm without jacket
Reel Lengths	1,000 m or 2,000 m wooden drums
Packaging	Wooden reel, PE film-wrapped
Core Marking	None — ready for OEM jacket printing
MOQ	3,000 – 5,000 metres per type
Standards	TIA/EIA-568.2-D, ISO/IEC 11801 Class D, EN 50173, RoHS and REACH compliant

Full page: <https://semifcable.com/products/utp-cat5e.html>

All figures are the published specification for each product. Values outside these tables are confirmed in writing before order rather than estimated. Cores are supplied unjacketed and unprinted unless otherwise agreed.