Description

Category cable or more commonly referred as CAT cable was set in place by the Electronics Industries Alliance (EIA) and is now maintained by the Telecommunications Industry Association (TIA). In 1991 these industries worked to define the elements of balanced twisted pair cable, fiber optic cabling, and coaxial cabling and associated connectors.

For Category cable the EIA and TIA have sectioned these cabling products into 6 different categories named CAT 1 - CAT 6. Here at Sycor we can supply multiple different categories' and offer a range of customizable value added services.

Category 1 cables are a 2 pair copper conductor, designed for POTS (plain old telephone systems). Have 1MHz bandwidth, the Cat 1's are most commonly used for telecommunication cables, but are incapable of carrying data, because of its restricted bandwidth. Cat 1 cables used to be the most common telecommunications cable and were once found in almost every office and home.

Category 2 cables consist of 4 twisted pair conductors. Having double the conductors of Cat 1, the Cat 2 has an increased bandwidth of 4 Mbps, which is why this cable is typically used for teletype and fax communications. Cat 1 & 2 are name variations of level 1 and level 2 cables, while neither are defined under the TIA 568-C standard.

Category 3 cables are commonly known as station wire, which is an unshielded twisted pair cable designed to carry data for 10 Mpbs. This cable was used in the early 1990's for computer networking in a system called a Token Ring. Defined under TIA 568-C, this station wire is still used as telephone wiring today.

Category 4 cables are another step up from Cat 3, offering 16 Mbps of bandwidth. The Cat 4 is commonly used in the Token Ring and early 10Base-T networks.

Category 5 cables are a UTP networking cable and are also known as the Cat5e cable. The Cat5e offers better crosswalk than the previous Cat 5, but still offers the same 100MHz bandwidth. The Cat 5e is used within structured cabling for computer networks such as 10Base-t, 100Base-T, 100Base-TX (fast Ethernet), and 1000Base-T networks and for many A/V and telephone applications.

Category 6 standardized cable has Gigabit Ethernet and other physical network layers that is backward compatible with the Category 5/5e and Category 3 cable standards. Having much higher specifications for crosswalk, system noise and providing 250 MHz of bandwidth, is why this cable is typically used on 1000Base-T (Gigabit Ethernet) and 10GBase-T (10-Gigabit Ethernet). There is also the Cat 6a which is an augmented standard with bandwidth up to 500MHz.

Temperature Rating

Cat 5/5e   -20°C to 60°C
Cat 6/6e/6a   -20°C to 60°C

Construction

Cat 5 Standard 24 AWG solid or stranded bare copper conductors
Cat 6 Standard 23 AWG solid or stranded bare copper conductors
(Other gauge sizes may be available)
Insulation materials vary:
Polyvinyl Chloride (PVC), Polyolefin (PO),
Flouroethylene Propylene (FEP), Polyethylene (PE)
Conductors are cabled (twisted) in 4 pairs
Available with or without shielding for individual pairs or overall Low Smoke, flame retardant Polyvinyl Chloride (PVC) jacket
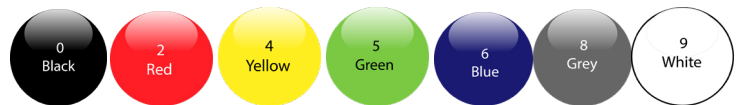**Different color jackets may be available**
Plenum rated available

Approvals

ANSI/TIA/EIA 568.2
ISO/IEC 11801
UL Std 44 UL 70,000 BTU
CSA Std 22.2 FT-4

Application

For structured cabling use in wiring computer networks, data centers, telephony and video.

Value Added Service

Cutting   Re-Spooling   Terminating

Jacket Color Codes

| 0 Black | 2 Red | 4 Yellow | 5 Green | 6 Blue | 8 Grey | 9 White |

*Others by request, conductor color codes table

Conductor Color Selection

Blue	X Blue/White
Orange	X Orange/White
Green	X Green/White
Brown	X Brown/White

Sycor Cat Cable Type	Max transmission speed	Max Bandwidth	AWG	Application
Cat 3	10Mbps	16 MHz	24	Token ring & 10Base-T
Cat 5/5e	1,000 Mpbs/ 1 Gbps	100 MHz	24	Gigabit Ethernet & Token ring
Cat 6/6e	1,000 Mpbs/ 1 Gbps	250MHz	23	Gigabit Ethernet
Cat 6a	10000 Mpbs / 10Gbps	500 MHz	23	Video & HDBase-T

*Other gauge sizes may be available
Contact us for a specific detailed quotation