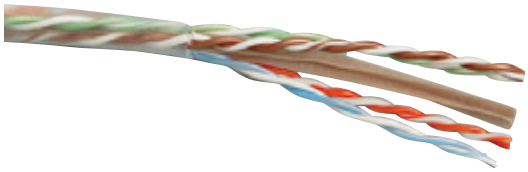
TrueNet®

Limited Combustible Category 6 Cable



ADC's TrueNet® Category 6 Limited Combustible Cable addresses some of the combustibility and toxicity safety concerns that network installers and users have raised regarding the proliferation of traditional plenum cable. Combustibility and toxicity have long been an industry issue, and as more and more cable proliferates, especially in plenum or air-carrying environments, safety concerns continue to trouble network installers and users. The longstanding requirements and de facto standard of NFPA 262 outline the combustibility requirements allowable in plenum spaces. However, today many feel that this is not enough. In an effort to reduce this danger to personnel and equipment further, many users desire to specify limited combustible cabling (CMP-50) beyond the basic plenum requirements. Through the use of AirES technology, ADC is able to deliver its TrueNet® Limited Combustible cable that not only exceeds the CMP-50 standards, but also performs well beyond Category 6 requirements.

ADC's AirES technology is a unique patent design that incorporates channels of air within the insulation that run the length of the cable and reduce the amount of material required to insulate the conductor. Since AirES cables require less insulation material within the cable itself (32% less) there is less material to burn. Less fuel means less smoke and less toxicity in air-return environments. In addition AirES improves virtually every attribute associated with the structured cabling system—signal strength and integrity, easier installation, increased signal speed, improved wire management, reduced crosstalk, even reduced space requirements.

SPEC SHEET

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Applications

- 4/16Mbps Token Ring (IEEE 802.5)
- 10Base-T (IEEE 802.5)
- 100Mbps TP-PMD
- Broadband and baseband video
- 100Base-T (Fast Ethernet)
- 100Base-T4 (Fast Ethernet)
- 100Base-TX (Fast Ethernet)
- 100VG-AnyLAN (IEEE802.12)
- 52/155 Mbps ATM (ATM Forum)
- 622Mbps ATM (ATM Forum)
- 1000Base-T (Gigabit Ethernet)
- 1Gbps Networking System (WGNA)
- 1.2Gbps ATM (ATM Forum)
- 77 Channel broadband video

Compliances

- UL Subject 444
- (UL)-C(UL) Type CMP
- ICEA S-90-661
- NEC 800 Type CMP
- ISO/IEC 11801 Class E
- ETL verified TIA/EIA-568-B.21-1 Category 6 horizontal cable requirements

Specifications

CONSTRUCTION	
Conductor:	24 AWG solid bare copper
Insulation:	100% FEP
Separator:	Fluoropolymer
Jacket:	FEP .205" (5.2 mm) nominal O.D.
MECHANICAL CHARACTERISTICS	
Bend Radius:	
During Installation:	8 x O.D.
Installed:	4 x O.D.
Pull Tension:	25# (110N)
THERMAL CHARACTERISTICS	
Transport and Storage:	-40°C to 200°C
Installation:	4°C to 50°C
Operation:	-40°C to 200°C
ELECTRICAL CHARACTERISTICS	
Conductor DC Resistance @ 20°C (Max):	28.6 Ω/1000 ft (9.38 Ω/100 m)
DC Resistance Unbalance (Max):	2%
Mutual Capacitance @ 20°C (Max):	17 pF/ft (5.6nF/100 m)
Operating Voltage (Max):	300 VDC
Worst Case Cable Skew:	30 ns/100 m
Nominal Velocity of Propagation:	75%

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Freq MHZ	Fitted Impedance Ohms	Insertion Loss dB/100m		Return Loss dB/100m		Pair-Pair NEXT dB/100m		PSNEXT dB/100m	
	Spec	Max	Spec	Min	Spec	Min	Spec	Min	Spec
1	100±5	1.7	2.0	27.4	20.0	84.2	74.3	83.5	72.3
4	100±3	3.4	3.8	31.1	23.0	81.6	65.3	78.5	63.3
8	100±3	4.8	5.3	28.6	24.5	76.5	60.8	74.1	58.8
10	100±3	5.4	6.0	29.3	25.0	70.7	59.3	69.6	57.3
16	100±3	6.8	7.6	28.0	25.0	69.5	56.2	67.5	54.2
20	100±3	7.6	8.5	28.3	25.0	65.5	54.8	64.0	52.8
25	100±3	8.6	9.5	27.9	24.3	62.4	53.3	60.9	51.3
31.25	100±3	9.6	10.7	29.6	23.6	65.9	51.9	63.7	49.9
62.5	100±3	13.7	15.4	30.6	21.5	60.7	47.4	57.8	45.4
100	100±3	17.5	19.8	28.1	20.1	57.9	44.3	57.3	42.3
155	100±3	22.2	25.2	29.7	18.8	54.3	41.4	52.7	39.4
200	100±3	25.2	29.0	29.1	18.0	53.0	39.8	51.4	37.8
250	100±3	28.3	32.8	26.7	17.3	51.1	38.3	50.8	36.3
300	100±3	31.3	-	24.9	-	46.0	-	45.4	-
350	100±3	34.1	-	22.9	-	46.7	-	46.0	-
400	100±3	36.8	-	22.6	-	49.0	-	46.1	-
550	100±3	55.6	-	17.4	-	42.9	-	41.1	-

Freq MHZ	Pair-Pair ACR dB/100m		PSACR dB/100m		Pair-Pair ELFEXT dB/100m		PSELFEXT dB/100m		LCL dB/100m
	Min	Spec	Min	Spec	Min	Spec	Min	Spec	Min
1	82.6	72.3	82.0	70.3	74.6	67.8	74.4	64.8	40.0
4	78.3	61.5	75.2	59.5	63.1	55.8	63.0	52.8	40.0
8	71.9	55.4	69.5	53.4	57.2	49.7	57.0	46.7	40.0
10	65.4	53.3	64.5	51.3	55.1	47.8	55.0	44.8	40.0
16	63.0	48.7	61.0	46.7	51.1	43.7	50.9	40.7	38.0
20	58.0	46.3	56.7	44.3	49.3	41.8	49.0	38.8	37.0
25	54.1	43.8	52.6	41.8	47.0	39.8	46.7	36.8	36.0
31.25	56.8	41.2	54.4	39.2	45.4	37.9	45.0	34.9	35.1
62.5	47.2	32.0	44.3	30.0	39.4	31.9	39.4	28.9	32.0
100	40.7	24.5	40.1	22.5	35.7	27.8	35.3	24.8	30.0
155	32.6	16.3	31.0	14.3	31.0	24.0	30.9	21.0	28.1
200	27.7	10.8	26.2	8.8	29.2	21.8	29.0	18.8	27.0
250	23.1	5.5	23.0	3.5	29.1	19.8	28.8	16.8	26.0
300	15.1	-	14.6	-	28.9	-	28.9	-	-
350	12.9	-	12.2	-	27.6	-	27.4	-	-
400	13.8	-	11.1	-	26.2	-	25.5	-	-
550	-	-	-	-	19.1	-	18.3	-	-

Note: The above listed discrete frequency electrical performance values are provided or engineering information only. Actual compliance testing is based on swept frequency measurements. The spec values are based on TIA/EIA-568-B.2-1 specification.

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Ordering Information

Description	Weight (lbs/kft)	Ordering Number
4-pair cable, clear jacket Nominal OD: 0.205 inches (5.2 mm) Maximum Average OD: 0.205 inches (5.2 mm)		
Reel packaging – 1000 ft spool	31	TN6ESD-CL02
Reel in a box – 1000 ft	33	TN6ESD-CLRB
4-pair cable, blue jacket Nominal OD: 0.205 inches (5.2 mm) Maximum Average OD: 0.205 inches (5.2 mm)		
Reel packaging – 1000 ft spool	31	TN6ESD-BL02
Reel in a box – 1000 ft	33	TN6ESD-BLRB

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Web Site: www.adc.com

From North America, Call Toll Free: 1-800-366-3891 • Outside of North America: +1-952-938-8080

Fax: +1-952-917-3237 • For a listing of ADC's global sales office locations, please refer to our Web site.

ADC Telecommunications, Inc., P.O. Box 1101, Minneapolis, Minnesota USA 55440-1101

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