

## 70 SERIES CABLES CAT6A SMALL OD CMR/CMP

PDS-0225



### DESCRIPTION

**Wirewerks 70 Series Cables** are small OD, 4-Pair, UTP, 23 AWG, solid copper conductor, CMR/CMP-rated indoor Category 6A premise cables with a mylar screen and an internal crossweb spline to control pair positioning and separation.

Wirewerks 70 Series Small OD UTP Cables exceed ANSI/TIA-568-C.2 (Category 6A) and ISO/IEC 11801 (Class EA) specifications for use in IEEE 10GBASE-T (10-gigabit Ethernet) network applications. Electrical specifications exceeding 500 MHz have been independently verified by ETL and are fully guaranteed by Wirewerks.

Wirewerks 70 Series Small OD Cables are precision engineered and manufactured to provide additional headroom (margin) over industry-standard specifications for complete confidence in high-performance, mission-critical 10-gigabit Ethernet (10GbE) applications.

### FEATURES and BENEFITS

- Small OD design means more cables in less space; relieves over-fill/congestion in conduits, plenums spaces, cable trays and underfloor spaces in data centers
- ETL Verified performance specifications; demanding '6-around-1' test configuration
- 1000'/305m Reel packaging
- Descending length markings on jacket – always know how much is left before you start pulling
- Low memory jacket adapts/responds quickly during installation
- Ultra-stable and reliable performance regardless of installation environment/conditions
- Backward compatible with CAT6 and CAT5/5e connectivity
- Mylar foil provides all performance benefits of a shielded solution without the need for grounding

APPLICATIONS

**Environments**

- Commercial Building/Enterprise LANs
- Data Centers and SANs
- Healthcare Facilities
- Education Facilities
- Any application requiring 10GbE Category 6A F/UTP (Mylar) and U/UTP cabling

**Network Applications**

- 10GBASE-T Ethernet (10GbE) (CAT6A)
- 10/100/1000/10GBASE-T Ethernet (CAT3/CAT5/CAT5e/CAT6/CAT6A)
- 100BASE-TX, 100VG-AnyLAN
- 155 ATM, 622ATM
- NTSC/PAL Component or Composite Video
- Digital video; broadband and baseband analog video
- AES/EBU Digital Audio
- Power-over-Ethernet (Type 1, 2, 3, 4)

ORDERING INFORMATION

Part Number	Description
7043-2RWH-L305	CAT6A Small O.D. UTP 4P/23AWG Solid CMR White, Reel, 305M
7043-2RBL-L305	CAT6A Small O.D. UTP 4P/23AWG Solid CMR Blue, Reel, 305M
7043-2PWH-L305	CAT6A Small OD UTP 4P/23AWG Solid CMP, White, Reel, 305m (1000ft)
7043-2PBL-L305	CAT6A Small OD UTP 4P/23AWG Solid CMP, Blue, Reel, 305m (1000ft)

PACKAGING AND SHIPPING

Parameter	CMP	CMR
Shipping Weight including reel	20.22kg	19.15kg
Reel OD	380mm	380mm
Reel Height	324mm	324mm
Packaging	Reel, 305m (1000ft)	

PHYSICAL SPECIFICATIONS

Conductors		
Material	Bare solid copper	
Gauge	23 AWG	
Insulation Material	FEP - Fluorinated Ethylene Propylene (Mylar coated foil)	
Insulation Color	Pair 1	Blue-White/Blue
	Pair 2	Orange-White/Orange
	Pair 3	Green-White/Green
	Pair 4	Brown-White/Brown
Outer Jacket & Spine		
Outer Jacket Material	LSFRPVC - Low Smoke Flame Retardant Polyvinyl Chloride	
Spline Material	Fluorinated Ethylene Propylene (FEP)	
Standard Jacket Colors	Blue, White	
Other Jacket Colors	Contact Wirewerks	

MECHANICAL SPECIFICATIONS

Parameter	Value	
Nominal OD	CMP	6.7mm ± 0.2 mm
	CMR	7.00mm ± 0.2 mm
Bulk Cable Weight	19.02kg/305m (41.93lbs/1000ft)	
Max Pulling Tension	110N (25lbf)	
Min Bend Radius	4 x OD	

PHYSICAL SPECIFICATIONS

Safety & Flammability	
NEC Articles	800
NEC/(UL) Specification	CMP
CEC/C(UL) Specification	CMP
C(UL) Flammability	FT6
UL Flammability	NFPA 262 Plenum (UL 910)
CSA Flammability	FT6
Plenum Use	Required
Riser Use	Allowed
Safety & Flammability	
Operating Temp	-20°C (-4°F) ~ 60°C (140°F)
Storage Temp	-20°C (-4°F) ~ 75°C (167°F)
Installation Temp	+0°C (32°F) ~ +60°C (140°F)

ELECTRICAL SPECIFICATIONS

Characteristic	Parameter	Value
DC Resistance	Max Conductor DCR	9.38Ω/100m
	Max DCR Unbalance	≤4%
Capacitance	Pair-to-Ground Cap. Unbalance	≤ 330pF/100m
	Mutual Capacitance	≤ 5.6nF/100m
Delay	Nom. Velocity of Propagation	4 ≤ 5ns/m
	Max Propagation Delay	570ns/100m@1MHz
	Max Delay Skew	45ns/100m
Impedance		1~500MHz: 100±15Ω
Voltage Rating		300V RMS
Spark Test		2.5KV DC
AC Leakage Current Through Overall Jacket		≤ 10mA (1.5KV AC)
Dielectric Strength		1.5 KV ac for 2 s
Insulation Resistance		≥ 5000 MΩ•km

PERFORMANCE SPECIFICATIONS

Freq. (MHz)	IL	NEXT	PS NEXT	ACR	PS ACR	ACRF	PS ACRF	RL	PROP. DELAY	DELAY SKEW
	MAX. dB/100m	MIN. dB/100m	MIN. dB/100m	MIN. dB/100m	MIN. dB/100m	MIN. dB/100m	MIN. dB/100m	MIN. dB/100m	MAX. ns/100m	MAX. ns/100m
1	2.08	74.30	72.30	72.22	70.22	67.80	64.80	20.00	570.00	45.00
4	3.80	65.27	63.27	61.47	59.47	55.76	52.76	23.01	552.00	
8	5.31	60.75	58.75	55.44	53.44	49.74	46.74	24.52	546.73	
10	5.93	59.30	57.30	53.37	51.37	47.80	44.80	25.00	545.38	
16	7.49	56.24	54.24	48.75	46.75	43.72	40.72	25.00	543.00	
20	8.38	54.78	52.78	46.41	44.41	41.78	38.78	25.00	542.05	
25	9.38	53.33	51.33	43.95	41.95	39.84	36.84	24.32	541.20	
31.25	10.50	51.88	49.88	41.37	39.37	37.90	34.90	23.64	540.44	
62.5	14.99	47.36	45.36	32.37	30.37	31.88	28.88	21.54	538.55	
100	19.14	44.30	42.30	25.17	23.17	27.80	24.80	20.11	537.60	
150	23.68	41.66	39.66	17.98	15.98	24.28	21.28	18.87	536.94	
200	27.58	39.78	37.78	12.21	10.21	21.78	18.78	18.00	536.55	
250	31.07	38.33	36.33	7.26	5.26	19.84	16.84	17.32	536.28	
300	34.27	37.14	35.14	2.88	0.88	18.26	15.26	16.77	536.08	
350	37.25	36.14	34.14	N.A.	N.A.	16.92	13.92	16.30	535.92	
400	40.05	35.27	33.27	N.A.	N.A.	15.76	12.76	15.89	535.80	
450	42.71	34.50	32.50	N.A.	N.A.	14.74	11.74	15.53	535.70	
500	45.26	33.82	31.82	N.A.	N.A.	13.82	10.82	15.21	535.61	

**STANDARDS  
COMPLIANCE**

**ANSI/TIA-568-C.2 (Category 6A)**

Balanced Twisted-Pair Telecommunication Cabling and Components Standard

**ISO/IEC 11801 Edition 2.2 (Class EA)**

Information Technology — Generic Cabling for Customer Premises

**ANSI/TIA-942-B**

Telecommunications Infrastructure Standard for Data Centers

**IEEE 802.3an/802.3-2015**

10GBASE-T 10 Gbit/s Ethernet Over Copper Twisted Pair Cable

**ANSI/TIA-1179-A**

Healthcare Facility Telecommunications Infrastructure

**IEEE 802.3af/802.3at/802.3bt**

Power-over-Ethernet

**ANSI/TIA-4966**

Telecommunications Infrastructure Standard for Educational Facilities

**RoHS 2 (2011/65/EU)**

Directive on the Restriction of the Use of Certain Hazardous Substances