

# PUR Industrial Ethernet Cat7 Multipair Cable

**multicomp**<sup>PRO</sup>



**RoHS  
Compliant**

## Application

This multipair industrial ethernet Cat7 cable is suitable for Profinet Type B applications. Can be used in dry or damp rooms for plant engineering and machinery manufacturing. The rugged polyurethane sheath provides protection even in extreme industrial environments.

## Characteristics

Voltage Rating	: 125V
Temperature Rating	: Fixed: -40°C to +80°C Flexed: -20°C to +70°C
Minimum Bending Radius	: Fixed: 8 × overall diameter Flexed: 12 × overall diameter

## Cable Standards

IEC 61156-6, IEC 60811-2-1



## UK Laboratory Tested

This product is subject to the Quality Assurance protocols of The Cable Lab®, a UKAS accredited ISO 17025 cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



## Regulatory Compliance

This cable meets the requirements of the Low Voltage Directive 2014/35/EU and the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.



## Construction

### Conductor

Stranded bare copper wires (AWG24/7)

### Insulation

FPE (Polyethylene)

### Separator Tape

PET (Polyester)

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## Pair Shield

AL/PET (Aluminium Polyester Tape)

## Braid

TCWB (Tinned Copper Wire Braid) 90% coverage

## Sheath

PUR compound (Thermoplastic Polyurethane)

## Pairs Identification

White and Green

White and Orange

White and Blue

White and Brown

## Sheath Colour

Green

## Dimensions

No. of Pairs	Nominal Conductor Diameter mm <sup>2</sup> (AWG / strands)	Nominal Diameter Insulation mm	Nominal Overall Diameter mm	Nominal Weight kg/km
4	0.22 (7 / 24)	1.43	8.5	94

## Electrical Characteristics at 20°C

Max. DC Conductor Resistance Ω/km	Capacitance pF/km		Min. Insulation Resistance GΩ×km	Impedance Ω	Nominal Propagation Velocity	Delay Skew ns/100m	Dielectric Strength kV AC / 1 min	
	Core/Core	Unbalanced					Core/Core	Core/Shield
84	42	1600	5	100	75%	25	1.5	1

Fre- quency MHz	Attenua- tion STD dB/100m	Attenua- tion Typical dB/100m	Next STD dB	Next Typical dB	PS Next STD dB	PS Next Typical dB	EI-FEXT STD dB/100m	EI-FEXT Typical dB/100m	PS EI- FEXT STD dB/100m	PS EI- FEXT Typical dB/100m	Min. PS ACR dB/100m	PS ACR Typical dB/100m	Return Loss STD dB	Return Loss Typical dB
1	3	2.1	80	>95	77	>95	78	>95	75	>95	74	92.9	-	28
4	5.6	3.8	80	>95	77	>95	78	>95	75	95	71.4	91.2	23.1	30
10	8.8	5.9	80	>95	77	>95	74	95	71	92	68.2	89.1	25	33
16	11.1	7.6	80	>95	77	>95	69.9	92	66.9	89	65.9	87.4	25	33
20	12.4	8.6	80	>95	77	95	68	88	65	85	64.6	86.4	25	33
31.25	15.6	10.8	80	95	77	92	64.1	82	61.1	79	61.4	81.2	23.3	33
62.5	22.3	15.3	75.5	93	72.5	90	58.1	77	55.1	75	50.2	74.7	20.7	30
100	28.5	19.8	72.4	91	69.4	88	54	70	51	67	40.9	68.2	19	28
125	32.1	22.5	70.9	90	-67.9	87	52.1	68	49.1	65	35.8	64.5	18.2	27
155.52	36	25.3	69.5	89	-66.5	86	50.2	64	47.2	61	30.5	60.7	17.3	25
200	41.2	28.8	67.9	88	64.9	85	48	58	45	55	23.7	56.2	16.4	25
250	46.5	32.2	66.4	86	63.4	83	47	55	43	52	16.9	50.8	15.6	23
350	55.8	38.3	64.2	84	61.2	81	43.1	49	40.1	46	5.4	42.7	15.6	22
500	67.9	46.8	61.9	83	58.9	80	40	47	37	44	-	33.2	15.6	21
600	75.1	51.7	60.7	81	57.7	78	38.4	44	35.4	41	-	26.3	15.6	20

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# PUR Industrial Ethernet

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**Part Number Table**

Description	Reel Length	Part Number
PUR Industrial Ethernet Cat7 Multipair Cable	100m	PP001546

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