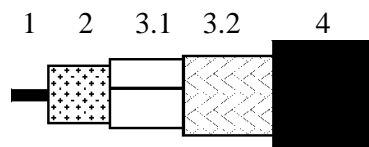
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APPLICATION

Coaxial cables used in cabled distribution networks designed according the European Standard EN 50117.5 (1995) operating at frequencies between 5 MHz and 2150 MHz and the International Standard IEC 1196.

CONSTRUCTION




1	Inner conductor	Solid soft annealed copper
2	Dielectric	Gas injected PE
3.1	Foil	AL-PET-AL (bonded to dielectric)
3.2	Braid	Annealed tinned copper
4	Sheath	PVC according the European Standard HD 624.

REQUIREMENTS AND TEST METHODS

Test methods in accordance with European standard EN 50117-1.

Mechanical characteristics

1. Inner conductor:		
Diameter:		0.80 mm ± 0.015 mm
2. Dielectric:		
Diameter:		3.66 mm ± 0.15 mm
Adhesion:		no shrinkback **
3. Outer conductor:		
Diameter screen:		4.2 mm ± 0.15 mm
Foil overlap:		≥ 1 mm
Coverage braid:		43 % ± 4 %
4. Sheath:		
Diameter:		6.0 mm ± 0.2 mm
Tensile strength:		≥ 12.5 N/mm ²
Elongation at break:		≥ 150 %
5. Cable:		
Crush resistance of cable:		< 1% (load of 700N)
Storage/operating temperature:		-15°C to +70°C
Minimum installation temperature:		-5 °C
Minimum static bend radius:		30 mm
Total weight:		37.5 gr/m

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Electrical characteristics

Mean characteristic impedance:	$75 \pm 3 \Omega$
Regularity of impedance:	$> 40 \text{ dB}$
DC loop resistance:	$\leq 63 \Omega/\text{km}$
DC resistance inner conductor:	$\leq 35 \Omega/\text{km}$
DC resistance outer conductor:	$\leq 28 \Omega/\text{km}$
Capacitance:	$55 \text{ pF/m} \pm 2 \text{ pF/m}$
Velocity ratio:	0.82 ± 0.02
Insulation resistance:	$> 10^4 \text{ M}\Omega.\text{km}$
Voltage test of dielectric:	2 kVdc
Screening efficiency 30-130 MHz:	$\geq 75 + 0.08 * (\text{freq}[\text{MHz}] - 130)$
130-1000 MHz	$\geq 75 \text{ dB}$

Return loss at	5-30 MHz:	$\geq 20 \text{ dB}^*$
	30-470 MHz:	$\geq 20 \text{ dB}^*$
	470-862 MHz:	$\geq 18 \text{ dB}^*$
	862-2150 MHz:	$\geq 16 \text{ dB}^*$

*Max. 3 peak values 4 dB lower than specified.

Attenuation at	Nominal	Attenuation at	Nominal
5 MHz:	2.0 dB/100m	1000 MHz:	26.1 dB/100m
50 MHz:	5.8 dB/100m	1350 MHz:	30.7 dB/100m
100 MHz:	7.9 dB/100m	1600 MHz:	33.6 dB/100m
200 MHz:	11.3 dB/100m	1750 MHz:	35.3 dB/100m
400 MHz:	16.2 dB/100m	2150 MHz:	39.4 dB/100m
600 MHz:	20.0 dB/100m	2400 MHz:	41.9 dB/100m
800 MHz:	23.2 dB/100m		

Maximum attenuation is 10% higher.

** Not according EN 50117

REVISIONS

#	Description	Date	Initials



Belden CDT believes this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.

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