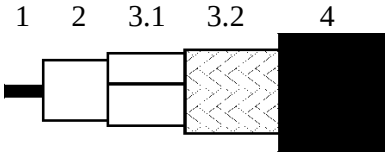
APPLICATION

Coaxial cables used in cabled distribution networks designed according the European Standard EN 50117-2-1 and EN50117-2-4 operating at frequencies between 5 and 3000 MHz.

CONSTRUCTION



1	Inner conductor	Solid soft annealed copper
2	Dielectric	Gas injected LDPE
3.1	Foil	Copper-polyester foil
3.2	Braid	Annealed 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:	1.25 mm ± 0.03 mm
2. Dielectric:	
Diameter:	5.5 mm ± 0.15 mm
Adhesion:	10 – 100 N at 25 mm
3. Outer conductor:	
Diameter screen:	6.2 mm ± 0.2 mm
Coverage braid:	50 % ± 5 %
4. Sheath:	
Diameter:	7.8 mm ± 0.2 mm
Tensile strength:	≥ 12.5 N/mm^2
Elongation at break:	≥ 150 %
5. Cable:	
Storage/operating temperature:	-40°C to +70°C
Minimum installation temperature:	-5 °C
Minimum static bend radius:	40 mm

Electrical characteristics

Mean characteristic impedance:	75 ± 3 Ω
Regularity of impedance:	> 40 dB or <1%
DC loop resistance:	≤ 28.5 Ohm/km
DC resistance inner conductor:	≤ 15 Ohm/km
DC resistance outer conductor:	< 13.5 Ohm/km
Capacitance:	54 pF/m ± 2 pF/m
Velocity ratio:	0.81 ± 0.02
Insulation resistance:	> 10^4 MOhm.km
Voltage test of dielectric:	2 kVdc
Screening efficiency after flexing	
30-1000 MHz:	≥ 75 dB
1000 – 2000 MHz:	≥ 65 dB
2000 – 3000 MHz:	≥ 55 dB
Return loss at 5-30 MHz:	≥ 23 dB*
30-470 MHz:	≥ 23 dB*
470-1000 MHz:	≥ 20 dB*
1000-2000 MHz:	≥ 18 dB*
2000-3000 MHz:	≥ 16 dB*

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

Attenuation at	Nominal	Attenuation at	Nominal
5 MHz:	1.5 dB/100m	860 MHz:	15.5 dB/100m
50 MHz:	3.5 dB/100m	1000 MHz:	17.0 dB/100m
100 MHz:	5.0 dB/100m	1750 MHz:	22.8 dB/100m
200 MHz:	7.5 dB/100m	2150 MHz:	26.0 dB/100m
460 MHz:	11.5 dB/100m	2400 MHz:	28.0 dB/100m
800 MHz:	14.9 dB/100m	3000 MHz:	32.0 dB/100m

Maximum attenuation is 10% higher.

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.