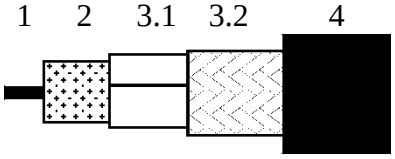
APPLICATION

Coaxial cables used in cabled distribution networks designed according the European Standard EN 50117-2-2 and En 50117-2-5 operating at frequencies between 5 MHz 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	LDPE 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:	1.63 mm ± 0.02 mm
2. Dielectric:	
Diameter:	7.28 mm ± 0.2 mm
Adhesion:	26 – 260 N at 50 mm
3. Outer conductor:	
Diameter screen:	8.1 mm ± 0.25 mm
Coverage braid:	50 % ± 5 %
4. Sheath:	
Diameter:	10.1 mm ± 0.3 mm
Tensile strength:	≥ 10 N/mm^2
Elongation at break:	≥ 300 %
5. Cable:	
Storage/operating temperature:	-40°C to +70°C
Minimum installation temperature:	-5 °C
Minimum static bend radius:	50 mm

Electrical characteristics

Mean characteristic impedance:	75 ± 3 Ω
Regularity of impedance:	> 40 dB or < 1%
DC loop resistance:	≤ 18.5 Ω/km
DC resistance inner conductor:	≤ 8.5 Ω/km
DC resistance outer conductor:	≤ 10.0 Ω/km
Capacitance:	54 pF/m ± 2 pF/m
Velocity ratio:	0.81 ± 0.02
Insulation resistance:	> 10^4 MΩ.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:	0.9 dB/100m	1000 MHz:	14.0 dB/100m
50 MHz:	2.8 dB/100m	1750 MHz:	19.2 dB/100m
100 MHz:	3.9 dB/100m	2150 MHz:	21.9 dB/100m
200 MHz:	5.7 dB/100m	2400 MHz:	23.2 dB/100m
460 MHz:	9.2 dB/100m	3000 MHz:	26.1 dB/100m
800 MHz:	12.2 dB/100m		
860 MHz:	12.6 dB/100m		

Maximum attenuation is 10% higher.

REVISIONS

#	Description	Date	Initials

Belden declares 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.