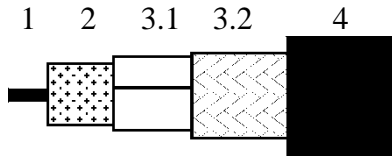
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APPLICATION

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

CONSTRUCTION



1	Inner conductor	Solid soft annealed copper
2	Dielectric	Gas injected PE
3.1	Foil	AL-PET-AL
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:	0.8 mm ± 0.015 mm
2. Dielectric:		
	Diameter:	3.5 mm ± 0.15 mm
	Adhesion:	No shrinkback
3. Outer conductor:		
	Diameter screen:	4.1 mm
	Foil overlap:	≥ 1 mm
	Coverage braid:	43 % ± 4 %
4. Sheath:		
	Diameter:	5.0 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:	-40°C to +70°C
	Minimum installation temperature:	-5 °C
	Minimum static bend radius:	25 mm



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Electrical characteristics

Mean characteristic impedance:	$75 \pm 3 \Omega$
Regularity of impedance:	$> 40 \text{ dB}$
DC loop resistance:	$\leq 75 \Omega/\text{km}$
DC resistance inner conductor:	$\leq 35 \Omega/\text{km}$
DC resistance outer conductor:	$\leq 40 \Omega/\text{km}$
Capacitance:	$53 \text{ pF/m} \pm 2 \text{ pF/m}$
Velocity ratio:	0.84 ± 0.02
Insulation resistance:	$> 10^4 \text{ M}\Omega.\text{km}$
Voltage test of dielectric:	2 kVdc
Screening efficiency after flexing at	
30-1000 MHz:	$\geq 75 \text{ dB}$
1000-2000 MHz:	$\geq 65 \text{ dB}$
2000-3000 MHz:	$\geq 55 \text{ dB}$
Transfer Impedance	$< 50 \text{ m}\Omega/\text{m}$ from 5MHz to 30 MHz.
Return loss at	
5-30 MHz:	$\geq 20 \text{ dB}^*$
30-470 MHz:	$\geq 20 \text{ dB}^*$
470-1000 MHz:	$\geq 18 \text{ dB}^*$
1000-2000 MHz:	$\geq 16 \text{ dB}^*$
2000-3000 MHz:	$\geq 15 \text{ dB}^*$

*Max. 3 peak values up to 4 dB lower than specified are permissible.

Longitudinal attenuation:	$a = 0.72$
$a \cdot \sqrt{f} + b \cdot f + c$	$b = 0.0021$
where f is frequency in MHz	$c = 0.7$

Attenuation at	Nominal	Attenuation at	Nominal
5 MHz:	2.3 dB/100m	1000 MHz:	25.6 dB/100m
50 MHz:	5.9 dB/100m	1350 MHz:	30.0 dB/100m
100 MHz:	8.1 dB/100m	1750 MHz:	34.5 dB/100m
230 MHz:	12.1 dB/100m	2150 MHz:	38.6 dB/100m
400 MHz:	15.9 dB/100m	2400 MHz:	41.0 dB/100m
800 MHz:	22.7 dB/100m	3000 MHz:	45.9 dB/100m
862 MHz:	23.6 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.