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SENDING ALL THE RIGHT SIGNALS					

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### APPLICATION

Coaxial cables used for Radio-frequency designed according the International Standard IEC 1196.

#### CONSTRUCTION

1 2 3.1 3.2 4

1 Inner conductor 19x0.28 mm Stranded soft annealed copper

2 Dielectric Gas injected PE3.1 Foil AL-PET-AL

3.2 Braid Annealed tinned copper

4 Sheath LSNH/FRNC according the European Standard HD 50290 2 27.

## REQUIREMENTS AND TEST METHODS

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

#### **Mechanical characteristics**

1. Inner conductor.

Diameter:  $1.41 \text{ mm} \pm 0.03 \text{ mm}$ 

2. Dielectric:

Diameter:  $3.9 \text{ mm} \pm 0.15 \text{ mm}$ 

Centricity:  $\geq 0.85$ 

Adhesion: 5 - 50 N at 25 mm

3. Outer conductor:

Diameter screen:  $4.5 \text{ mm} \pm 0.25 \text{ mm}$ 

Foil overlap:  $\geq 2 \text{ mm}$ Coverage braid:  $80 \% \pm 5 \%$ 

4. Sheath:

Diameter: 5.4 mm  $\pm$  0.2 mm Tensile strength:  $\geq$  9.0 N/mm<sup>2</sup> Elongation at break:  $\geq$  125 %

Corrosivity: To meet European Standard HD60754-2

LOI: > 35 %

Resistance to flame propagation: To meet International Standard IEC 60332-1

5. Cable:

Crush resistance of cable: < 1% (load of 700N) Storage/operating temperature: -30°C to +70°C

Minimum installation temperature: -5 °C Minimum static bend radius: 60 mm



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### **Electrical characteristics**

Mean characteristic impedance:	$50\pm3~\Omega$
Regularity of impedance:	> 40 dB
DC loop resistance:	$\leq$ 32.4 $\Omega$ /km
DC resistance inner conductor:	$\leq 15.4 \Omega/km$
DC resistance outer conductor:	$\leq 17.0 \ \Omega/\mathrm{km}$
Capacitance:	$84 \text{ pF/m} \pm 3 \text{ pF/m}$

 $\begin{aligned} & \text{Velocity ratio:} & 0.80 \pm 0.02 \\ & \text{Insulation resistance:} & > 10^4 \, \text{M}\Omega.\text{km} \end{aligned}$ 

 Voltage test of dielectric:
 2 kVdc

 Screening efficiency 30-1000 MHz:
 ≥ 85 dB

 Return loss at
 5-30 MHz:
 ≥ 20 dB\*

 30-470 MHz:
 ≥ 20 dB\*

 470-1000 MHz:
 ≥ 18 dB\*

 1000-2000 MHz:
 ≥ 16 dB\*

 2000-3000 MHz:
 ≥ 15 dB\*

<sup>\*</sup> Max. 3 peak values 4 dB lower than specified.

Attenuation at	Nominal	Attenuation at	Nominal
5 MHz:2.5	dB/100m	862 MHz:	27.3 dB/100m
50 MHz:6.	9dB/100m	1000 MHz:	29.6 dB/100m
100 MHz:	9.1 dB/100m	1350 MHz:	34.9 dB/100m
230 MHz:	13.4 dB/100m	1750 MHz:	40.3 dB/100m
400 MHz:	18.0  dB/100m	2150 MHz:	46.0 dB/100m
800 MHz:	26.1 dB/100m	2400 MHz:	49.1 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.