

TECHNICAL DATA SHEET	Code	H124C02
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APPLICATION

Coaxial cables used in cabled distribution networks designed according the European Standard EN 50117 operating at frequencies between 5 MHz and 2150 MHz. Cable fulfills according standard E4156.1-A3 and E4156.2-A4 of London Underground

CONSTRUCTION

2 3.1 3.2 4

Solid soft annealed copper 1 Inner conductor 2 Dielectric Gas injected PE (color white)

3.1 Foil Copper

3.2 Braid Annealed copper

Sheath LSNH 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: $1.00 \text{ mm} \pm 0.03 \text{ mm}$

Elongation at break ≥ 15%

2. Dielectric:

Diameter: $4.4 \text{ mm} \pm 0.15 \text{ mm}$

3. Outer conductor:

Diameter screen: $5.0 \text{ mm} \pm 0.2 \text{ mm}$

Foil overlap: $\geq 2 \text{ mm}$ Coverage braid: $38 \% \pm 4 \%$

4. Sheath:

Diameter: $7.0 \text{ mm} \pm 0.2 \text{ mm}$

Nominal wall thickness: 1.0 mm

 \geq 9.0 N/mm² Tensile strength: Elongation at break: ≥ 125 % UV-resistant:

yes

Cable:

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

-5 °C Minimum installation temperature: Minimum static bend radius: 70 mm

Total weight and copper weight: 52.5 and 16.3 kg/km

Color: RAL 7032 (pebble grey), Black



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Electrical characteristics

 $\begin{array}{lll} \mbox{Mean characteristic impedance:} & 75 \pm 3 \ \Omega \\ \mbox{Regularity of impedance:} & > 40 \ dB \\ \mbox{DC loop resistance:} & \leq 41 \ \Omega/\mbox{km} \\ \mbox{DC resistance inner conductor:} & \leq 23 \ \Omega/\mbox{km} \\ \mbox{DC resistance outer conductor:} & \leq 19 \ \Omega/\mbox{km} \\ \end{array}$

Capacitance: 53 pF/m \pm 2 pF/m

Velocity ratio: 0.84 ± 0.02 Insulation resistance: $> 10^4 \text{ M}\Omega.\text{km}$

Voltage test of dielectric: 2 kVdc Screening attenuation 30-1000 MHz: \geq 75 dB Return loss at 5-30 MHz: \geq 23 dB* \leq 30-470 MHz: \geq 23 dB* \leq 270-862 MHz: \leq 20 dB*

470-862 MHz: ≥ 20 dB* 862-2150 MHz: ≥ 18 dB*

*Max. 3 peak values 4 dB lower than

specified.

Attenuation at Nominal Attenuation at Nominal 5 MHz: 1.3 dB/100m 800 MHz: 18.5 dB/100m 50 MHz: 4.3 dB/100m 20.9 dB/100m 1000 MHz: 24.7 dB/100m 100 MHz: 6.1 dB/100m 1350 MHz: 200 MHz: 8.8 dB/100m 1750 MHz: 28.6 dB/100m 12.7 dB/100m 32.1 dB/100m 400 MHz: 2150 MHz: 15.8 dB/100m 34.2 dB/100m 600 MHz: 2400 MHz:

Maximum attenuation is 10% higher.

LIFE EXPECTANCY:

Belden has designed the coax H124 for a performance lifetime expectancy of 40 years, and we actually guarantee this cable for 15 years.

REVISIONS

#	Description	Date	Initials
4	Marking info removed	2008-04-01	RvN
5	Changed the storage/operating temperature to -30°C	2010-05-19	PBo



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.