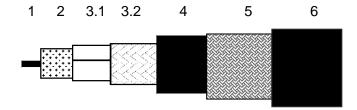


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#### **APPLICATION**

Cable fulfills according standard E4156.1-A3 and E4156.2-A4 of London Underground

# **CONSTRUCTION**



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

3 Inner Shield

3.1 Foil Copper

3.2 Braid Annealed copper

4 Covering LSNH/FRNC according the European Standard HD 624.

Color RAL 9005 (black).

5 Outer Shield (Braid) Annealed copper

6 Sheath LSNH/FRNC according the European Standard HD 624.

Color RAL 9005 (black)

# 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:  $\geq 15\%$ 

2. Dielectric:

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

3. Inner Shield:

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

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

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4. Inner sheath:

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

Nominal wall thickness 1.0 mm
Tensile strength:  $\geq 9.0 \text{ N/mm}^2$ Elongation at break:  $\geq 125 \%$ 

5. Outer Shield:

Diameter screen: 7.5 mm  $\pm$  0.3 mm Coverage braid: 60 %  $\pm$  5 %

6. Outer sheath:

Diameter:  $8.8 \text{ mm} \pm 0.3 \text{ mm}$ 

Nominal wall thickness 0.65 mm
Tensile strength:  $\geq 9.0 \text{ N/mm}^2$ Elongation at break:  $\geq 125 \%$ UV resistant yes

Cable:

Crush resistance of cable: < 1% (load of 700N)

Storage/operating temperature: -15°C to +70°C

Minimum installation temperature: -5 °C Minimum static bend radius: 90 mm

Total weight and copper weight: 99.0 and 30.15 kg/km

**Electrical characteristics** 

Mean characteristic impedance: $75 \pm 3 \Omega$ Regularity of impedance:> 40 dBDC resistance inner conductor: $\leq 23 \Omega/\text{km}$ DC resistance inner shield: $\leq 19 \Omega/\text{km}$ DC resistance outer shield: $\leq 14 \Omega/\text{km}$ 

Capacitance inner conductor to shield: 53 pF/m  $\pm$  2 pF/m

Velocity ratio:  $0.84 \pm 0.02$  Insulation resistance:  $> 10^4$  M $\Omega$ .km

Voltage test of dielectric: 2 kVdcScreening efficiency 30-1000 MHz:  $\geq 75 \text{ dB}$ 

Return loss at 5-30 MHz:  $\geq$  23 dB\*

30-470 MHz:  $\geq 23 \text{ dB*}$  470-862 MHz:  $\geq 20 \text{ dB*}$ 862-2150 MHz:  $\geq 18 \text{ dB*}$ 

\*Max. 3 peak values 4 dB lower than

specified.



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

Maximum attenuation is 10% higher.

# LIFE EXPECTANCY:

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

# **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.