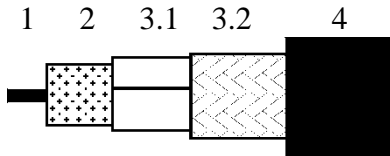


**APPLICATION**

Coaxial cables used in cabled distribution networks designed according the European Standard EN 50117-2-1/2 operating at frequencies between 5 MHz and 1000 MHz and the International Standard IEC 1196.

**CONSTRUCTION**

|     |                 |                   |
|-----|-----------------|-------------------|
| 1   | Inner conductor | Copper Clad steel |
| 2   | Dielectric      | Gas injected PE   |
| 3.1 | Foil            | AL-PET bonded     |
| 3.2 | Braid           | Aluminum          |
| 4   | Sheath          | PVC               |

**REQUIREMENTS**

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

**Mechanical characteristics**

|                                |                          |
|--------------------------------|--------------------------|
| 1. Inner conductor:            |                          |
| Diameter:                      | 1.02 ± 0.05 mm           |
| 2. Dielectric:                 |                          |
| Diameter:                      | 4.6 ± 0.2 mm             |
| Adhesion:                      | 5 to 80N @ 25mm          |
| 3. Outer conductor:            |                          |
| Nominal diameter screen:       | 5.25 mm                  |
| Foil overlap:                  | ≥ 1 mm                   |
| Coverage braid:                | 56 % ± 5 %               |
| 4. Sheath coax:                |                          |
| Material:                      | PVC                      |
| Diameter:                      | 6.9 ± 0.2 mm             |
| Tensile strength:              | ≥ 12.5 N/mm <sup>2</sup> |
| Elongation at break:           | ≥ 150 %                  |
| 5. Cable                       |                          |
| Crush resistance of cable:     | < 1% (load of 700N)      |
| Storage/operating temperature: | -40°C to +70°C           |
| Minimum static bend radius:    | 70 mm                    |

**Electrical characteristics single coax**

|                                |  |
|--------------------------------|--|
| Mean characteristic impedance  | $75 \pm 3 \Omega$  |
| DC resistance inner conductor: | $\leq 105 \Omega/\text{km}$  |
| DC resistance outer conductor: | $\leq 51 \Omega/\text{km}$   |
| Capacitance:                   | nominal 54 pF/m  |
| Velocity ratio:                | 0.82+/-0.02  |
| Insulation resistance:         | $> 10^4 \text{ M}\Omega.\text{km}$                                     |
| Voltage test of dielectric:    | 2 kVdc   |
| Screening efficiency           | 50-650 MHz: $\geq 65 \text{ dB}$<br>650-1000 MHz: $\geq 75 \text{ dB}$ |

|                |               |                        |
|----------------|---------------|------------------------|
| Return loss at | 5-470 MHz:    | $\geq 20 \text{ dB}^*$ |
|                | 470-1000 MHz: | $\geq 18 \text{ dB}^*$ |

\*Max. 3 peak values 4 dB lower than specified.

| Attenuation at | Nominal     | Attenuation at | Nominal      |
|----------------|-------------|----------------|--------------|
| 5 MHz:         | 2.8 dB/100m | 400 MHz:       | 13.0 dB/100m |
| 50 MHz:        | 4.9 dB/100m | 600 MHz:       | 16.3 dB/100m |
| 100 MHz:       | 6.5 dB/100m | 800 MHz:       | 18.9 dB/100m |
| 200 MHz:       | 9.0 dB/100m | 1000 MHz:      | 21.8 dB/100m |

Maximum attenuation is 10% higher.

| Rev. number | Description                   | Date       | Initials |
|-------------|-------------------------------|------------|----------|
| 1           | Introduction of specification | 27-03-2012 | 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.