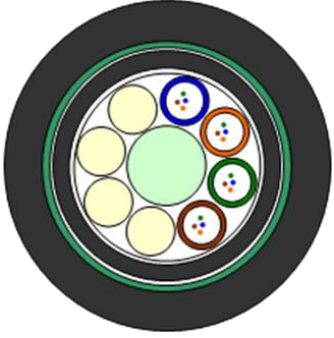




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Fiber Optic - Loose Tube – Armored/Double PE Jacket

| | |
|---|--|
|    | <p>For more information please call 1-800-Belden1</p> <p><u>See Put-ups and Colors</u></p> <p>Related Documents: No.10 for Fiber Optic Cables .pdf</p> |
|---|--|

Cable Characteristics:

DESCRIPTION:

4 to 16 optical fibers, Gel filling loose tubes (4f/T), FRP central strength member, Gel filling cable core, CSTA armor, Double PE jacket (black).

PHYSICAL CHARACTERISTICS:

| | |
|-------------------------------|----------------------------------|
| Fiber Type | 125/250 µm |
| Number of Fibers | 4 to 16 |
| Number of Fibers per Tube | 4 |
| Fiber Color Code Chart: | |
| Number | Color |
| 1 | Blue |
| 2 | Orange |
| 3 | Green |
| 4 | Brown |
| Buffer Tube Diameter | 2.0 mm |
| Buffer Tube Material | PBT – Polybutylene Terephthalate |
| Buffer Tube Filling Material | Synthetic Thixotropic Gel |
| Buffer Tube Color Code Chart: | |
| Number | Color |
| 1 | Blue |
| 2 | Orange |
| 3 | Green |
| 4 | Brown |

STRENGTH MEMBER:

| | |
|----------------------------------|----------------------|
| Central Strength Member Material | Fiberglass Epoxy Rod |
|----------------------------------|----------------------|

OVERALL CABLING:

| | |
|-----------------------------|---------------------------|
| Overall Cabling Fillers | Polypropylene |
| Cable Core Filling Material | Synthetic Thixotropic Gel |

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INNER JACKET:

| | |
|----------------------------------|-------------------|
| Inner Jacket Material | PE – Polyethylene |
| Inner Jacket Nom. Wall Thickness | 1.0 mm |
| Inner Jacket Color | Black |

ARMORING:

| | |
|-----------------|------------|
| Armor Type | Corrugated |
| Armor Material | Steel Tape |
| Armor Thickness | 0.15 mm |

OUTER JACKET:

| | |
|----------------------------------|-------------------|
| Outer Jacket Material | PE – Polyethylene |
| Outer Jacket Nom. Wall Thickness | 1.8 mm |
| Outer Jacket Color | Black |

OVERALL DIAMETER:

| | |
|--------------------------|---------|
| Overall Nominal Diameter | 15.8 mm |
|--------------------------|---------|

MECHANICAL CHARACTERISTICS:

| | |
|---|--------------------------------|
| Operating Temperature Range | - 40°C To + 70°C |
| Storage Temperature Range | - 40°C To + 70°C |
| Bulk Cable Weight | 226 kg/km |
| Max. Load for Installation | 3000 N, Passes IEC794-1 |
| Max. Load for Long Term Application | 1000 N, Passes IEC794-1 |
| Min Bend Radius for Installation | 20 × Cable OD, Passes IEC794-1 |
| Min Bend Radius for Long Term Application | 10 × Cable OD, Passes IEC794-1 |
| Crush Resistance | 3000 N/100mm, Passes IEC794-1 |
| Impact Resistance | Passes IEC794-1 |
| Solar Radiation Resistance | Passes IEC794-1 |
| Water Penetration | Passes IEC794-1 |
| Compound Flow | Passes IEC794-1 |
| Cyclic Flexing | Passes IEC794-1 |

APPLICABLE SPECIFICATION AGENCY COMPLIANCE:

APPLICABLE STANDARDS:

| | |
|-------------------------|--------------------------|
| Specification | IEC 60794-1, EIA/TIA-455 |
| EU RoHS Compliant (Y/N) | Y |
| EU RoHS Compliance Date | Aug 2007 |

SUITABILITY:

| | |
|----------------------------|---|
| Suitability – Indoor (Y/N) | Y |
|----------------------------|---|

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| | |
|-----------------------------------|---|
| Suitability - Outdoor (Y/N) | Y |
| Suitability - Aerial (Y/N) | Y |
| Suitability – Duct (Y/N) | Y |
| Suitability – Direct Burial (Y/N) | Y |
| Sunlight Resistance (Y/N) | Y |

Optical Characteristics:

| SINGLE MODE FIBERS | G652.D (OS2) |
|---|-------------------------------|
| Belden Fiber Code | U12 |
| Typical Mode Field Diameter @ 1310nm | 9.2 ± 0.4 μm |
| Typical Mode Field Diameter @ 1550nm | 10.4 ± 0.5 μm |
| Cladding Diameter | 125 ± 0.7 μm |
| Clad Non-Circularity | ≤ 0.7 % |
| Core-Clad Concentricity Error | ≤ 0.5 μm |
| Primary Coating Material | Acrylate |
| Primary Coating Diameter | 245 ± 5 μm |
| Secondary Color Coating Diameter | 250 ± 10 μm |
| Max. Attenuation @ 1310nm | 0.36 dB/km |
| Max. Attenuation @ 1550nm | 0.22 dB/km |
| Point Loss @ 1310nm & 1550nm | 0.05 dB |
| Zero Dispersion Wavelength | 1302 – 1322 nm |
| Max. Slope @ Zero Dispersion Wavelength | 0.090 ps/(nm ² km) |
| Max. PMD @ Link Design Value | 0.1 ps/√ km |
| Cable Cutoff Wavelength | ≤ 1260 nm |
| Refractive Index @ 1310nm | 1.466 |
| Refractive Index @ 1550nm | 1.467 |

| MULTI-MODE FIBERS | 62.5μm OM1 | 50μm OM2 | 50μm OM3 |
|-------------------------------|---------------|---------------|---------------|
| Belden Fiber Code | U62 | U50 | U53 |
| Typical Core Diameter | 62.5 ± 2.5 μm | 50.0 ± 2.5 μm | 50.0 ± 2.5 μm |
| Cladding Diameter | 125 ± 1.0 μm | 125 ± 1.0 μm | 125 ± 1.0 μm |
| Clad Non-Circularity | ≤ 1 % | ≤ 1 % | ≤ 1 % |
| Core-Clad Concentricity Error | ≤ 1.5 μm | ≤ 1.5 μm | ≤ 1.0 μm |
| Primary Coating Material | Acrylate | Acrylate | Acrylate |
| Primary Coating Diameter | 245 ± 7 μm | 245 ± 7 μm | 245 ± 7 μm |

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| | | | |
|---|---------------|---------------|---------------|
| Secondary Color Coating Diameter | 250 ± 10 µm | 250 ± 10 µm | 250 ± 10 µm |
| Max. Attenuation @ 850nm | 3.5 dB/km | 3.0 dB/km | 3.0 dB/km |
| Max. Attenuation @ 1300nm | 1.0 dB/km | 1.0 dB/km | 1.0 dB/km |
| Min. Overfilled Bandwidth @ 850nm | 200 MHz.km | 500 MHz.km | 1500 MHz.km |
| Min. Overfilled Bandwidth @ 1300nm | 600 MHz.km | 500 MHz.km | 500 MHz.km |
| Point Loss @ 850nm & 1300nm | 0.10 dB | 0.10 dB | 0.10 dB |
| Numerical Aperture | 0.275 ± 0.015 | 0.200 ± 0.015 | 0.200 ± 0.015 |
| Refractive Index @ 850nm | 1.496 | 1.482 | 1.482 |
| Refractive Index @ 1300nm | 1.491 | 1.477 | 1.477 |
| Min. G-Ethernet Transmission Distance@850nm | 300 m | 550 m | 1000 m |
| Min.G-EthernetTransmissionDistance@1300nm | 550 m | 550 m | 600 m |

PUT-UPS AND COLORS:

| Item | # Fibers | Fiber Type | Cable Description | Put-up * (metre) | Jacket Color |
|-----------------|----------|------------|----------------------------------|------------------|--------------|
| NOPU12MA004BKAA | 4 | G652.D | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |
| NOPU12MA008BKAA | 8 | G652.D | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |
| NOPU12MA016BKAA | 16 | G652.D | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |
| NOPU62MA004BKAA | 4 | 62.5µm OM1 | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |
| NOPU62MA008BKAA | 8 | 62.5µm OM1 | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |
| NOPU62MA016BKAA | 16 | 62.5µm OM1 | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |
| NOPU50MA004BKAA | 4 | 50µm OM2 | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |
| NOPU50MA008BKAA | 8 | 50µm OM2 | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |
| NOPU50MA016BKAA | 16 | 50µm OM2 | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |
| NOPU53MA004BKAA | 4 | 50µm OM3 | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |
| NOPU53MA008BKAA | 8 | 50µm OM3 | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |
| NOPU53MA016BKAA | 16 | 50µm OM3 | LOOSE TUBE CSTA DOUBLE PE JACKET | 2000 | BLACK |

* Other put-ups available upon request.

Revision Number: 7

Revision Date: 6/3/2014

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