

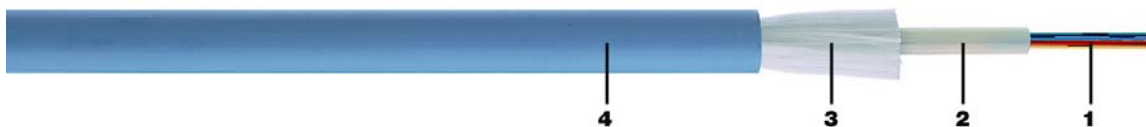
Application

- For **outdoor** use in structured (data) wiring systems (**campus backbone**).
- For **outdoor** use in networks for telecom, cable TV and/or broadcast.
- **Easy to install** in ducts, tunnels, trenches and/or tubes (by means of compressed air or pulling wire). Suitable for **direct burial** (crush ≤ 150 N/cm).

Key features

- A simple **all dielectric** cable construction (and consequently **more cost-effective up to 24 fibres** than multi-tube cables) with improved rodent protection.
- **Predicted lifetime > 30 years**.

Construction & dimensions



Cable specifications (construction in accordance with IEC 60794)

1. Primary coated optical fibres: $\text{Ø } 250 \pm 15 \mu\text{m}$.
2. Central tube, jelly filled (**non-dripping and silicon-free**) with **up to 24 fibres**.
 Individually colour coded optical fibres:
 1 – 12: red - natural - yellow - blue - green - violet - brown - black - orange - turquoise - pink and white
 13 – 24: red - natural - yellow - blue - green - violet - brown - grey - orange - turquoise - pink and white **with black rings**.
3. Swellable yarns as strength members and for the **longitudinal watertightness and improved rodent protection**.
4. **Blue** UV resistant PE outer jacket.
 Identification: BELDEN OFC – "cable type" – "number x type of fibre" + date-, meter- and P/N- marking.

Mechanical data

	improved rodent protection
No. of fibres	max. 24
Ø Central tube (mm)	4.2
Ø nom./max. (mm)	10.2 / 10.5
Weight (kg/km)	96
Energy of flame (kJ/m)	2200

Ordering information

Belden European Part Numbers

Fibre-type/-count	4	6	8	12	16	24
62.5/125-OM1	GORB104	GORB106	GORB108	GORB112	GORB116	GORB124
50/125-OM2	GORB204	GORB206	GORB208	GORB212	GORB216	GORB224
50/125-OM2e	GORB404	GORB406	GORB408	GORB412	GORB816	GORB824
50/125-OM3	GORB304	GORB306	GORB308	GORB312	GORB316	GORB324
9/125-OS1	GORB904	GORB906	GORB908	GORB912	GORB916	GORB924
Std. reel (non-returnable)	plywood reel $\text{Ø } 1000 * 530$ mm, weight 18 kg					
Std. delivery length	2100 \pm 100 m					

Optical Characteristics

Characteristics (cabled) Multi-Mode - Graded-Index optical fibres according to IEC 60793

Fibre-type	Size (μm)	Wavelength (nm)	Attenuation average/max. (dB/km)	Bandwidth (MHz \cdot km)	Ethernet Performance (m)		Refractive Index
					1GbE	10Gbe	
62.5/125 OM1	62.5 \pm 2.5	850	3.0 / 3.2	\geq 200	275	33	1.495
	125 \pm 1	1300	0.6 / 0.8	\geq 600	550	n.a.	1.490
50/125 OM2	50 \pm 2.5	850	2.5 / 2.7	\geq 600	550	82	1.481
	125 \pm 1	1300	0.5 / 0.8	\geq 1200	550	n.a.	1.476
50/125 OM2e	50 \pm 2.5	850	2,5 / 2,7	\geq 600	750	110	1,481
	125 \pm 1	1300	0,5 / 0,8	\geq 1200	2000	na	1,476
50/125 OM3	50 \pm 2.5	850	2.5 / 2.7	\geq 1500	900	300	1.482
	125 \pm 1	1300	0.5 / 0.8	\geq 500	550	n.a.	1.477

Characteristics (cabled) Single-Mode - Matched-Cladded optical fibres according to ITU-G.652B

Fibre-type	Size (μm)	Wavelength (nm)	Attenuation average/max. (dB/km)	Dispersion (ps/(nm \cdot km))	PMD (ps/ $\sqrt{\text{km}}$)	Refractive Index
9/125 OS1	9.2 \pm 0.4	1310	0.33 / 0.38	\leq 3.5		1.467
	125 \pm 1	1550	0.20 / 0.25	\leq 18	\leq 0.2	1.467

A test report (attenuation) is supplied with each delivery.

Mechanical, physical and/or environmental

Temperature range according to IEC 60794-1-2-F1

Transport/storage - 30 to + 70 °C

Installation - 5 to + 50 °C

Operation - 30 to + 70 °C

Watertightness according to IEC 60794-1-2-F5

Pulling tension according to IEC 60794-1-2-E1

Cable with improved RP \leq 4000 N

Crush resistance according to IEC 60794-1-2-E3

Cable \leq 15000 N/m

Bending radii for fibres and tubes

Installation/operation > 25 mm

Bending radii cable

Static according to IEC 60794-1-2-E11 - 10 x \emptyset

Dynamic according to IEC 60794-1-2-E6 - 15 x \emptyset

Guide to installation and handling

- When laying and installing optical fibre cables **it is vitally important not to exceed the specified values** set for pulling tension, bending radii and temperature.
The installation methods have to be in accordance with the common standards.
- To ease insertion into tubes by means of compressed air or pulling wire, certified lubricants (e.g. paraffin) may be used. The use of soap or similar substances as lubricants is strictly prohibited.
- If a cable needs to be fastened, constrictions \geq 0.3 mm must be prevented.
- The jelly filling inside the tubes can be removed using a tissue soaked in turpentine.
- It is advisable to cap the cable-ends during storage.

Options

- Universal (halogen-free) cables for outdoor and/or indoor use.
- **Non-standard cable constructions**, colours, details and/or additional information regarding specifications are available on request.