

## GORA

### Central Loose Tube Cables

#### Outdoor

#### A-DQ(ZN)B2Y

Improved Rodent Protection

### Ordering Information

#### Belden European Part Numbers

Fibre type / count	2	4	6	8	12
62.5/125-OM1	GORA102	GORA104	GORA106	GORA108	GORA112
50/125-OM2 BW 600/1200	GORA202	GORA204	GORA206	GORA208	GORA212
50/125-OM3	GORA302	GORA304	GORA306	GORA308	GORA312
50/125-OM2e	GORA402	GORA404	GORA406	GORA408	GORA412
50/125-OM2 BW 500/500	GORA502	GORA504	GORA506	GORA508	GORA512
50/125-OM4	GORA602	GORA604	GORA606	GORA608	GORA612
9/125 ITU G.655	GORA702	GORA704	GORA706	GORA708	GORA712
9/125 ITU G.652D-OS2	GORA802	GORA804	GORA806	GORA808	GORA812
Std. plywood reel (non-returnable)	plywood reel Ø 800 * 475 mm, weight 14 kg				
Std. delivery length	4100 ± 100m				

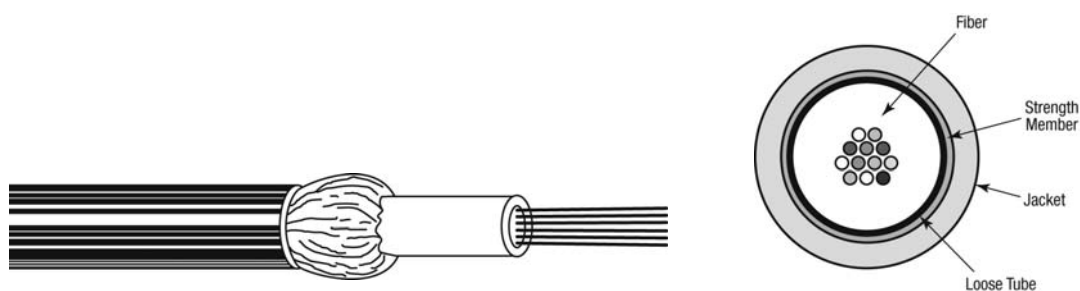
### Applications

- For **outdoor** use in structured (data) wiring systems (**campus backbone**)
- For **outdoor** use in networks for telecom, cable TV and/or broadcast.
- Suitable for **direct burial** (crush  $\leq 100$  N/cm). Easy to install in ducts, tunnels and trenches.

### Features & Benefits

- A simple **all dielectric** cable construction (and consequently **more cost-effective up to 12 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:  $\varnothing 250 \pm 15 \mu\text{m}$ .
2. Central tube, jelly filled (**non-dripping and silicon-free**) with **up to 12 fibres**.  
Individually colour coded optical fibres:  
Red – natural – yellow – blue – green – violet – brown – black – orange – turquoise – pink and white.
3. Swellable yarns as strength members and for the longitudinal watertightness and **improved rodent protection**.
4. Black UV resistant PE outer jacket.  
Identification: BELDEN OFC – “cable type” – number x type of fibre + date-, meter- and P/N marking.

## Mechanical Data

No. of fibres	Max. 12
$\varnothing$ Central tube (mm)	3.2
nom./max. (mm)	7.1 / 7.4
Energy of flame (kJ/m)	1056
Weight (kg/km)	44

## Optical Characteristics

Characteristics (cabled) Single-Mode – Matched-Cladded optical fibres according to ITU.

European Partnumber Coding, Position 5	Fibre-Type	Mode-Field /Cladding Diameter (um)	Wave-length (nm)	Attenuation average/ max. (dB/km)	Dispersion (ps/(nm-km))	PMD (ps/km)	Cable Cut-off Wave-length (nm)
8	9/125 G.652D OS2	9.2 ± 0.4 125 ± 0.7	1310 1550	0.32 / 0.40 0.21 / 0.30	≤ 3.5 ≤ 18	≤ 0.2	≤ 1260
7	9/125 G.655	8.4 ± 0.6 125 ± 1	1550	0.25 / 0.30	3.5 – 8.5	≤ 0.1 <sup>A</sup>	≤ 1260

Note A- Link design value

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

European Partnumber Coding, Position 5	Fibre-Type	Mode-Field Diameter (um)	Wave-length (nm)	Attenuation average/ max. (db/km)	Bandwidth (MHz·km)	Ethernet Performance (m)		Num. Apert. (µm)	Refr. Index
						1GBE	10 GBE		
1	62.5/125 OM1	62.5 ± 2.5 125 ± 1	850 1300	2.7 / 3.2 0.6 / 1.1	≥ 200 ≥ 600	275 550	33 n.a.	0.275 ± 0.015	1.495 1.490
5	50/125 OM2	50 ± 2.5 125 ± 1	850 1300	2.4 / 3.0 0.7 / 1.0	≥ 500 ≥ 500	600 600	82 n.a.	0.20 ± 0.015	1.481 1.476
2	50/125 OM2	50 ± 2.5 125 ± 1	850 1300	2.3 / 2.8 0.6 / 0.9	≥ 600 ≥ 1200	600 600	82 n.a.	0.20 ± 0.015	1.481 1.476
4	50/125 OM2e	50 ± 2.5 125 ± 1	850 1300	2.3 / 2.8 0.6 / 0.9	≥ 600 ≥ 1200	750 2000	110 na	0.20 ± 0.015	1.481 1.476
3	50/125 OM3	50 ± 2.5 125 ± 1	850 1300	2.5 / 3.0 0.5 / 1.0	≥ 1500 ≥ 500	900 550	300 n.a.	0.20 ± 0.015	1.482 1.477
6	50/125 OM4	50 ± 2.5 125 ± 1	850 1300	2.5 / 3.0 0.5 / 1.0	≥ 6000 ≥ 500	900 550	550 n.a.	0.20 ± 0.015	1.482 1.477

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

## Mechanical, Physical and/or Environmental Characteristics

Requirements	
<b>Temperature range</b> according to IEC 60794-1-2-F1	
Transport/storage	-30 to + 70 °C
Installation	-5 to + 50 °C
Operation	-30 to + 70 °C
<b>Pulling tension</b> according to IEC 60794-1-2-E1	
Long term	≤ 1400 N
Short term	≤ 2500 N
<b>Bending radii for fibres and tubes</b>	
Installation/operation	>25 mm
<b>Watertightness</b> according to IEC 60794-1-2-F5	Yes
<b>Crush resistance</b> according to IEC 60794-1-2-E3	
Cable	≤ 20000 N/m
<b>Bending radii cable</b>	
Static according to IEC 60794-1-2-E11	10 x Ø
Dynamic according to IEC 60794-1-2-E6	15 x Ø

## Guide to installation and handling

- When laying and installing optical fibre cables it is **vitaly 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 > 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.

**Revision**

Rev.	Description	Date	Init.
02	OM3+ changed to OM4	12/10/09	JW
03	OS2 added	25/11/09	JW
04	Crush resistance increased	29/03/10	SN
Date: 08/07/08		Page 1 of 1	
Orig.: SN		Review:	
			Part Number: <b>GORA</b>