

Application

- Particularly **suitable for installation in tubes** (by means of compressed air or pulling wire)
- **Easy to install** in ducts, tunnels, trenches and/or for direct burial

Key features

- **Predicted lifetime > 30 years**

Construction & Dimensions

1. Central strength member of galvanised steel wires with a polypropylene jacket
2. Primary coated optical fibres: $\varnothing 250 \pm 15 \mu\text{m}$
3. Jelly filled (non-dripping and silicon-free) loose tubes with up to 8 fibres
Individually colour coded optical fibres: red - natural – yellow - blue - green - violet - brown - black two copper wires: one with perforated red PE, one with solid blue PE
The loose tubes and copper wires are stranded around the central element
Colour coding of the loose tubes: 1. red - 2. white – 3.yellow - 4.white – 5.yellow - 6.white – 7.yellow - 8.white – 9.blue
4. Swelling tape
5. Aluminium foil bonded to the PE outer sheath
Identification: BELDEN OFC - "cable-type" - "number * type of fibre(s)" + date- P/N- and metre-marking

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 respective broadly standards or codes.
- To ease insertion into tubes by means of compressed air or pulling wire, certified lubricants (e.g. paraffin) might be used. The use of soap or similar substances as lubricants is strictly prohibited.
- If a cable needs to be fastened, constrictions $\geq 0.3 \text{ mm}$ 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.

Optical characteristics

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•km))	PMD (ps/ $\sqrt{\text{km}}$)	Refractive Index
9/125	9.2 \pm 0.4	1310	0.33 / 0.38	\leq 3.5	\leq 0.2	1.467
	125 \pm 1	1550	0.20 / 0.25	\leq 18		1.467

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

Mechanical, physical and/or environmental

No. of fibres	24	36	48	72
	type-al48			type-al72
Cable core	6*4	6*6	6*8	9*8
Copper wires	0,6Cu / 1,0PE			
Ø Central element (mm)	2.0 / 2.8			2.0 / 4.8
Ø Loose tube (mm)	2.1			
Ø nom/max (mm)	10.5 / 10.8			12.5 / 12.8
Weight (kg/km)	120			135

Standard delivery lengths

4100 \pm 100 m

Crush resistance according to IEC 794-1-E3

Loose tube \leq 3000 N/m
Cable \leq 15000 N/m

Temperature range according to IEC 794-1-F1

Transport/storage - 30 to + 70 °C
Installation - 5 to + 50 °C
Operation - 30 to + 70 °C

Pulling tension according to IEC 794-1-E1

Type-48 \leq 2000 N
Type-72 \leq 2500 N

Watertightness according to IEC 794-1-F5

Bending radii for fibres and tubes

Installation/operation > 25 mm

Bending radii cable

Static according to IEC 794-1-E11 - 10★Ø
Dynamic according to IEC 794-1-E6 - 15★Ø

Ordering information

Belden European Part Numbers

Cable-type-	48alPE			72alPE
Fibre-type/-count	24	36	48	72
9/125-OS1	YE00015	YE00016	YE00017	
Reel (non-returnable)	wooden reel Ø 1250 * 688 mm, weight 81 kg			
Std. delivery length	4100 \pm 100 m			