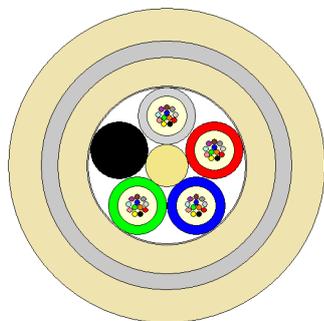


Underground Dielectric Optical Cables (OSGZ1)

Cable Design

NI 33.26.71



- not to scale -

- **Central Strength Member (CSM):** glass fibre reinforced plastic rod (FRP).
- **Loose Tube:** thermoplastic material, containing optical fibres and filled with a suitable water tightness compound.
- **Filler Elements:** thermoplastic rods, where needed.
- **Stranding:** loose tubes (and fillers), SZ stranded around the CSM.
- **Longitudinal Water Tightness:** dry core with water swellable elements.
- **Inner Sheath:** thermoplastic compound, two ripcords beneath.
- **Peripheral Strength Elements and Non Metallic Armour:** glass yarns.
- **Outer Sheath:** thermoplastic compound, two ripcords beneath.

Technical data

No. of Fibres		6	16	24	48	80	90	96
No. of tubes x no. fibres/tube		1 x 6	4 x 4	4 x 6	4 x 12	5 x 16	5 x 18	6 x 24
Inner Sheath Thickness	mm				1.3			
Outer Sheath Thickness	mm				1.5			
Cable Diameter	mm				14.3			
Cable Weight	kg / km				195			
Minimum Bending Radius	mm	Without Tension 15 x Cable-Ø			Under Maximum Tension 20 x Cable-Ø			
Temperature Range	°C	Installation -10 to +50		Transport & Storage -20 to +70		Operation -20 to +70		

Please refer to our General Installation, Safety & Handling recommendations before handling.

Main characteristics

Test	Test Standard	Specified Value	Acceptance Criteria
Max. Operation Tension	EN 187000-501	2500 N	no fibre strain, $\Delta\alpha \leq 0.05$ dB/100m
Crush	EN 187000-504	3000 N / 100 mm, max. 15 min	$\Delta\alpha \leq 0.05$ dB
Impact	EN 187000-505	5 J, 10 impacts, R= 12.5 mm	$\Delta\alpha \leq 0.05$ dB
Repeated Bending	EN 187000-507	330mm, 5 kg, 10 cycles	$\Delta\alpha \leq 0.05$ dB
Cable Bend	EN 187000-503	350mm, 5 turns	$\Delta\alpha \leq 0.05$ dB
Temperature Cycling	EN 187000-601	-20°C to +70°C	$\Delta\alpha \leq 0.05$ dB/km
Water Penetration	EN 187000-605B	sample=3m, water column=1m, 72h	no water leakage under inner sheath

All optical measurements at 1550 nm.

Optical Characteristics

According to specification NI 00.06.05

Fire Performance

Test	Test Standard	Specified Value	Acceptance Criteria
Flame non-propagation	EN-50265-2-1	unburnt cable length	> 50 mm
Smoke Density	EN 50268	transmission of light	> 60 %
Corrosivity of Smoke Gases	EN 50267-2-2	pH-value	≥ 4.3
Euroclass	EN 50575		Eca

Identification

Fibre Colours

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	green	red	blue	yellow	grey	violet	brown	orange	white	black	pink	aqua

No.	13	14	15	16	17	18	19	20	21	22	23	24
Colour	red ¹	yellow ¹	orange ¹	white ¹	pink ¹	grey ¹	red ¹	yellow ²	orange ²	white ²	pink ²	grey ²

<colour>¹ with black ring marks in 50mm intervals

<colour>² with 2 black ring marks in 50mm intervals

Buffer Tube Colours

No.	1	2	3	4	5*
Colour	white	red	blue	green	white or yellow

* G652D fibres: white / G655 fibres: yellow.

Filler Elements Colours:

All filler elements are black.

Sheath Colour:

Outer sheath colour is white (RAL 1015)

Sheath Marking:

The outer sheath is marked in 1 meter intervals as follows:

**<Manufacturer> OSGZ1-<fibre count (G652/G655)> NI 33.26.71 <year of manufacture>
<cable length identifier> <length marking in meter>**

Logistic

Packing:

Wooden drums with protection.

Delivery Lengths:

Standard delivery lengths are 4 km with a tolerance of -1% / +3%

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