Rosenberger

# PRODUCTPROFILE

## Catalogue number: 010A0010G657A1

Partnumber: 767000

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Cable A-DQ(ZN)B2Y12E9/125µm

A-DQ(ZN)B2Y12E9/125µm
schwarz, 2500N
GHMT PVP

**Related documents:**

| | |
|---|---|
| DS_A-DQZNB2YN2500-PVP_L_OE | Cable Data Sheet |
| DS_FASER G657A1_OE | Fiber Data Sheet |



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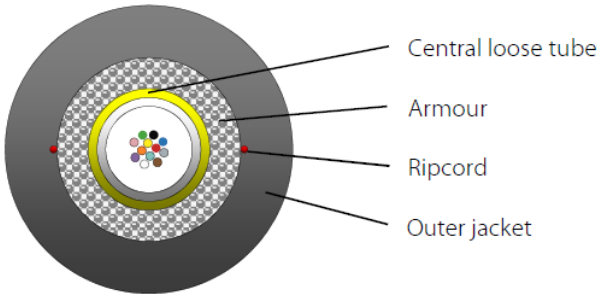
| Technical Data Sheet | Rosenberger |
|---|---|
| Fiber Optic Cable<br>A-DQ(ZN)B2Y n … 2500N GHMT PVP certified | 010AXXXX |




PVP only with singlemode fibers

## Standards

**- IEC 60794-3**

## Structure

**Loose tube:**
**-Jelly filled 2 layers loose tube: 2 to 12 optical fibers diameter 3.5 mm, 14 to 24 optical fibers diameter 4.0 mm**
**-Fiber color code 1 to 12: red, green, blue, yellow, white, grey, brown, violet, turquoise, black, orange, pink**
**-Fiber color code 13 to 24: red, green, blue, yellow, white, grey, brown, violet, turquoise, transparent, orange, pink, all with black ring-marking**

**Armor:**
**-Multifunctional reinforced E-glass yarns as strain relief elements and non-metallic rodent protection**

**Outer jacket:**
**-Polyethylen PE**
**-Standard jacket color black**
**-Wall thickness 1.5 mm**
**-Inkjet marking white acc. to separate drawing**

## Geometrical properties

| Number of fibers | Outer diameter [mm] | Weight [kg/km] |
|---|---|---|
| 12 | 8.3 | 60 |
| 24 | 8.8 | 70 |

## Mechanical properties

**-Min. bending radius fixed (static) acc. IEC 60794-1-2 E11A**
**15 x outside diameter**
**-Min. bending radius during installation (dynamic) with additional tensile strain acc. IEC 60794-1-2 E6**
**20 x outside diameter**
**-Max. tensile force acc. IEC 60794-1-2 E1 = 2500 N**
**-Max. crush resistance acc. IEC 60794-1-2 E3 long term = 1500 N/dm, short term = 3000 N/dm**
**-Longitudinally watertight acc. IEC 60794-1-2 F5A: l=3m, t=24h**

## Thermal properties

| | |
| --- | --- |
| **-Transport and storage** | **- 40°C to + 75°C** |
| **-Installation** | **- 5°C to + 50°C** |
| **-In use acc. IEC 60794-1-2 F1** | **- 40°C to + 75°C** |

## Chemical properties

**-UV resistance**
**-Good resistance to oil, petrol, acid, leach and water**

## Fire performance

**-Halogen-free acc. to IEC 60754-1**
**-Acidity of the combustion gases acc. to IEC 60754-2**

## Transmission characteristics

**See fiber data sheets**

## Applications

**-Longitudinally and transversely waterproof fibre optic outdoor cable with non-metallic rodent protection and higher tensile force**
**-For fixed installation outdoors, in cable ducts, tubes and also suitable for interconnections**
**-Suitable for underground laying (direct buried)**
**-Mechanical installation is only permitted when using force measuring devices with recording function**

## Deliveryform

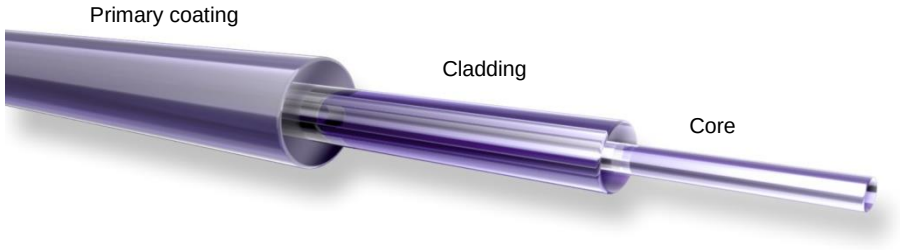
**On one-way drums**



| Draft | Date | Approved | Date |
| --- | --- | --- | --- |
| H. Jungbäck | 2017-07-24 | P. Maier | 2017-07-24 |

| Rev. | Engineering change number | Name | Date |
| --- | --- | --- | --- |
| 003 | without | H. Jungbäck | 2017-11-24 |

| Technical Data Sheet | Rosenberger |
|---|---|
| Optical fiber G.657.A1/G.652.D | 059A0478 |




## Standards

**Stepped index fiber 9/125µm according to**
**-ISO/IEC 11801 und EN 50173-1 OS2**
**-IEC 60793-2-50 type B1.3**
**-ITU G.657.A1 und G.652.D**

## Structure

**Silica fiber with two layer acrylate primary coating**

## Geometrical properties

| | |
|---|---|
| **Modefield diameter @1310 nm** | **9.2 µm +/- 0.4 µm** |
| **Modefield diameter @1550 nm** | **10.4 µm +/- 0.5 µm** |
| **Cladding diameter** | **125 µm +/- 0.07 µm** |
| **Cladding non-circularity** | **≤ 0.7 %** |
| **Core-Cladding concentricity** | **≤ 0.5 µm** |
| **Primary coating diameter** | **242 µm +/- 5 µm** |
| **Coating-Cladding concentricity** | **< 12 µm** |

## Mechanical properties

**Break strength SCREEN-Test 1 % strain for 1 s @100 kpsi**

## Thermal properties

**Operating temperature range -60 to +85°C**

## Transmission characteristics

**Attenuation:**

| | |
| --- | --- |
| **Cabled fiber tight buffered:** | **@ 1310 nm max. 0.38 dB/km**<br>**@ 1550 nm max. 0.28 dB/km** |
| **Cabled fiber loose tube:** | **@ 1310 nm max. 0.36 dB/km**<br>**@ 1550 nm max. 0.22 dB/km** |
| **Uncabled fiber:** | **@ 1310 nm max. 0.32 dB/km**<br>**@ 1383 nm max. 0.32 dB/km**<br>**@ 1490 nm max. 0.21 dB/km**<br>**@ 1550 nm max. 0.18 dB/km**<br>**@ 1625 nm max. 0.20 dB/km** |

**Macrobending, induced attenuation, uncabled fiber:**
**Radius 10 mm, 1 turn, @ 1550 nm ≤ 0.50 dB**
**Radius 10 mm, 1 turn, @ 1625 nm ≤ 1.50 dB**
**Radius 15 mm, 10 turns, @ 1550 nm . 0.05 dB**
**Radius 15 mm, 10 turns, @ 1625 nm ≤ 0.30 dB**
**Radius 25 mm, 100 turns, @ 1310, 1550 und 1625 nm ≤ 0.01 dB**

**Dispersion:**

| | |
| --- | --- |
| **@ 1285 - 1330 nm** | **≤ 3.0 ps/(nm*km)** |
| **@ 1550 nm** | **≤ 18.0 ps/(nm*km)** |
| **@ 1625 nm** | **≤ 22.0 ps/(nm*km)** |

**Polarization Mode Dispersion (PMD):**
**PMD Link Design Value ≤ 0.04 ps/√km**
**Maximum individual fiber PMD ≤ 0.1 ps/√km**

**Cut-off-Wavelength: ≤ 1260 nm**

**Effective group index of refraction:**
**@ 1310 nm 1.4676**
**@ 1550 nm 1.4682**

**Backscatter attenuation @ 1ns pulse width:**
**@ 1310 nm -77 dB**
**@ 1550 nm -82 dB**
**@ 1625 nm -83 dB**





| Draft | Date | Approved | Date |
| --- | --- | --- | --- |
| H. Jungbäck | 12-04-15 | P. Maier | 12-04-15 |

| Rev. | Engineering change number | Name | Date |
| --- | --- | --- | --- |
| 001 | without | H. Jungbäck | 12-04-15 |