

24.06.2020

**Product Datasheet**  
**Fiber Optic Cable: InDUCT Dielectric**  
A-DQ(ZN)2Y G.652D 2,7kN

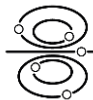
**Order information**

Design	Part number
A-DQ(ZN)2Y 5x4 G.652D 2,7kN	0494-83642-1-FC00101
A-DQ(ZN)2Y 6x4 G.652D 2,7kN	0494-83643-1-FC00101
A-DQ(ZN)2Y 6x8 G.652D 2,7kN	0494-83644-1-FC00101
A-DQ(ZN)2Y 1x12 G.652D 2,7kN	0494-83645-1-FC00101
A-DQ(ZN)2Y 2x12 G.652D 2,7kN	0494-83646-1-FC00101
A-DQ(ZN)2Y 4x12 G.652D 2,7kN	0494-83647-1-FC00101
A-DQ(ZN)2Y 8x12 G.652D 2,7kN	0494-83648-1-FC00101

**Product Pros**



Rodent protection



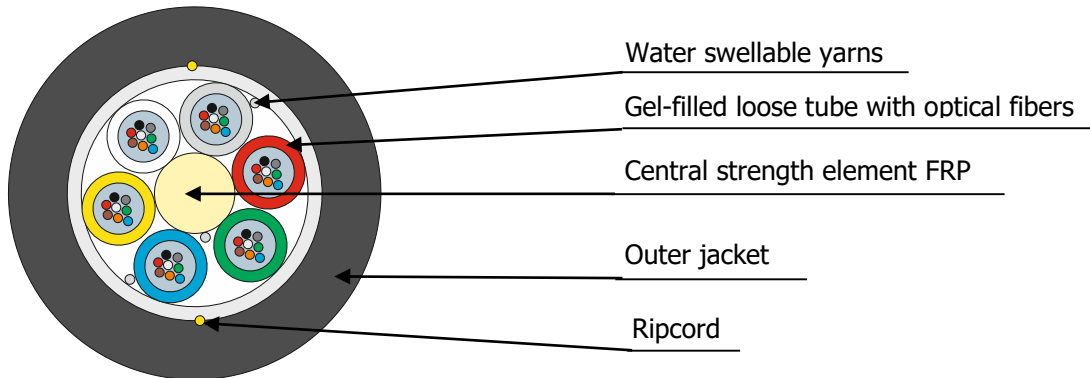
All-dielectric design



Tension:  
installation 2700N

**Application and design**

For cabling in duct, tubes, tunnels, manifolds, on the bridges and overpasses, inside buildings and construction.



Cable consists of stranded core with central strength element (FRP) gel-filled loose tubes with optical fibers and PBT solid filler rods (natural color)(when needed). Stranded core is fixed by water swellable yarns. Fiberglass yarns are laid over stranded core. Outer jacket is made of MDPE. Two ripcords are laid under outer jacket.

**Color identification of loose tubes and optical fibers**



Other colors upon request

## Cable marking example

Marking is made on each meter of cable

Fiber optic cable MÁV Zrt. 2020 = EMCAB = Fve 4 x 12 BR SM LWP 0494-83647-1 = 00001 m =

### Design details

Fiber count		20	24	48	12	24	48	96
Number of loose tubes		5	6	6	1	2	4	8
Fibers per loose tube		4	4	8	12	12	12	12
Number of PBT fillers		1	2	-	4	2	-	-
Outer jacket thickness, mm		1.7						
Cable diameter ±0.2	mm	9.7			9.8			11.6
Cable weight	kg/km	72.9			71.4			94.1

Other designs upon request

### Operating parameters

Operation temperature	-60°C...+70°C
Installation temperature	-30°C...+50°C
Transportation and storage temperature	-60°C...+70°C
Minimum bending radius	15 x cable diameter
Life time	25 years (per fiber supplier)

### Optical fiber

Fiber brand	Corning SMF 28®ULTRA
ITU-T Recommendation	G.652D + G.657.A1

#### Dimensional Specifications

Core-Clad Concentricity	0.5 µm
Cladding Diameter	125 ±0.7 µm
Cladding Non-Circularity	0.7 %
Coating Diameter	242 ±5 µm

#### Transmission Specifications

Attenuation in the cable (dB/km):	
1310 nm wavelength (Typical* / Max.)	0.32* / 0.35
1550 nm wavelength (Typical* / Max.)	0.19* / 0.21

\* Typical attenuation is the real level of optical attenuation of at least 90% fibers after cabling

Additional information about optical fibers on [www.emcab.co](http://www.emcab.co)

## Cable parameters

Parameter	Nominal value	Evaluation criterion
Tensile strength (IEC 60794-1-21 method E1)	fiber strain 2.7 kN	- $\Delta\alpha^* \leq 0.05$ dB - no damage
Crush (IEC 60794-1-21 method E3)	0.3 kN/cm	
Repeated bending (IEC 60794-1-21 method E6)	20 cycles, bending radius $\pm 90^\circ$	
Torsion (IEC 60794-1-21 method E7)	- 10 cycles - torsion angle $\pm 360^\circ$ length 4 m	
Impact (IEC 60794-1-21 method E4)	Impact energy 5 J	
Water penetration (IEC 60794-1-22 method F5C)	Sample length: 3 m Testing time: 24 hours	No water at the cable end
Temperature cycling** (IEC 60794-1-22 method F1)	- temperature range from $-30^\circ\text{C}$ to $70^\circ\text{C}$ - 2 cycles - cycle period $\geq 16$ hours	$\Delta\alpha^* \leq 0.05$ dB/km
Compound flow (IEC 60794-1-21 method E14)	at $70^\circ\text{C}$	No dripped compound

\* - attenuation increasing at standard wavelengths

\*\* - other temperature range upon request

## Safety standards compliance

RoHS: 2011/65/EU; 2015/863/EU

"Restriction on the use of certain Hazardous Substances"

REACH: 1907/2006/EU

"Registration, Evaluation, Authorisation and Restrictions of Chemicals"

## Reel packing and marking

Cables are supplied on non-returnable wooden reels. Reel diameter is not less than 40 diameters of the cable. Not less than 2 m of inside end of the cable is fixed to the reel flange. The cable ends are sealed with waterproof covers. The label on the outer reel flange contains our trademark, cable type, customer's name and PO, reel number, production date, cable length, cable weight net/gross.

The following information is printed on the reel flange: manufacturer's name and website, rotation direction, cable end indication, shipping and handling summary, labels "Fragile" and "Handle with care".

Our cable passport shows: cable type, technical standard number, cable length, fiber type, fiber coloring, fibers per tube, tube identification coloring, final attenuation for all fibers, refractive index of the fiber, fiber manufacturer and production date.

Cable passport is affixed to the inner flange in a plastic bag. Additional information can be included on the passport upon request.

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