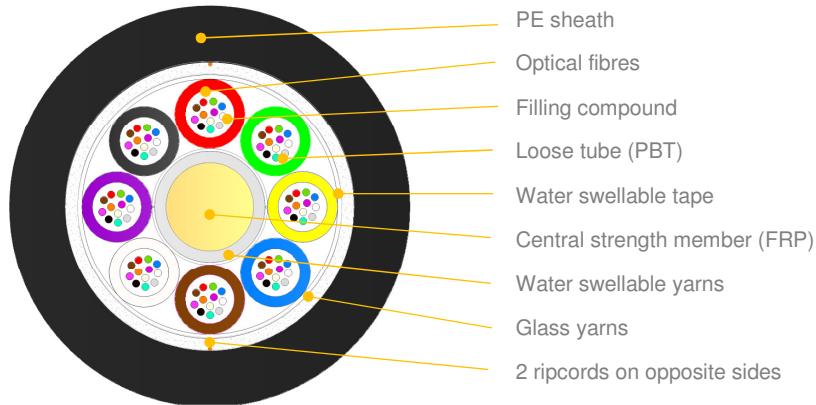


Type:	BDC-D04	REV: 2
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Project:	42-19	DR

Basic duct cable with multitube structure and glass yarn reinforcement BDC-D04



*schematic drawing not to scale

APPLICATION:

For installation into existing duct
Fully dielectric

DESIGN:

FRP strength and anti-buckling element
Water swellable yarns and tape to prevent moisture ingress into the cable core
Loose tube (PBT Ø 2.5 [mm]) with filing compound
Optical fibres (G.652.D compatible)
Fillers (if applicable)
Fibreglass yarns as strain relief and rodent protection in two layers laid in opposite directions
Fiberglass content $\geq 5,4$ [g/m]
Black UV stabilized PE sheath
Minimum outer sheath thickness = 1,4 [mm]

CABLE DESIGNS:

Variant	Quantity [pcs]				Ø nominal (±5%) [mm]	Nominal weight (±10%) [kg/km]	Max short term tensile load [N]	Max long term tensile load [N]
	Fibres	Fibres per tube	Total elements	Active tubes				

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Crush performance:	3000 [N/10 cm]	IEC 60794-1-21 E3, $\Delta\alpha \leq 0,1$ dB, after test
Bending radius:	Static: 15 x D Dynamic: 20 x D	IEC 60794-1-21 E6, $\Delta\alpha \leq 0,05$ dB, reversible
Water penetration:	3[m] sample, 1[m] head, 24[h]	IEC 60794-1-22 F5B, no leakage
Temperature range		IEC 60794-1-22 F1, $\Delta\alpha \leq 0,1$ dB/km
Installation:	-10... +70 [°C]	
Transport & Storage:	-30... +70 [°C]	

OPTICAL FIBRES AND LOOSE TUBES COLOUR IDENTIFICATION

Tube 01-12	1	2	3	4	5	6	7	8	9	10	11	12
Code	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Red	Green	Yellow	Blue	Brown	White	Violet	Black	Grey	Orange	Aqua	Pink
Fibre 01-12	1	2	3	4	5	6	7	8	9	10	11	12
Code	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Red	Green	Yellow	Blue	Brown	White	Violet	Black	Grey	Orange	Aqua	Pink

FIBRES PARAMETERS

For selected post-production optical fibres parameters please see **DSH_OFP** document.

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MARKING

The following marking (hot foil, laser marking or other suitable method depending on availability) is applied at 1-meter intervals:

Example: MÁV Zrt. <YEAR OF MANUFACTURE.> FIBRAIN <FIBRAIN PRODUCT CODE> Fve <TUBE COUNT> X <FIBER COUNT> BR SM LWP <BATCH NUMBER> <LENGTH MARKING>

The accuracy of marking is $\pm 1\%$. Remarking is in accordance with Bellcore GR 20 and supersedes earlier markings. Occasional loss of marking is possible. Cables can be supplied with a range of single mode or multimode fibres and customized print.

PACKING

Cables will be shipped on battened disposable wooden or treated wooden drums. Both ends of the cable will be capped and accessible for testing. FIBRAIN logo, drum ID and rotation direction arrow will be marked on both flanges. Minimum drum core diameter is 25 x D (where D stands for diameter of the cable). Test report and plastic label with following information will be attached to each drum (design to be determined according to customer requirements):

- Drum number (ID)
- Manufacturer's name
- MÁV Zrt.
- Cable type according to manufacturer's nomenclature e.g. BDC-D04 8x12 SM G.652D
- Cable type according to customer's nomenclature e.g. Fve 8x12 BR SM LWP
- MÁV cable code
- Cable length in meters
- Date of manufacture (year, month)
- Batch number
- Product order number
- Gross weight in kg
- Test reports for each fibre.

DELIVERY LENGTH

2000 – 8000 meters $\pm 5\%$ depending on cable design and technical limitations, with possibility of supplying up to 5% of total contract quantity as short length cables which should be above 1000 meters long. Tolerance of 5 % of order quantity shall be allowed.

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