

DIELECTRIC ARMoured OPTICAL FIBER CABLE. REPSOL SPECIFICATION



Optical fibre



ROHS compliant

STANDARDS

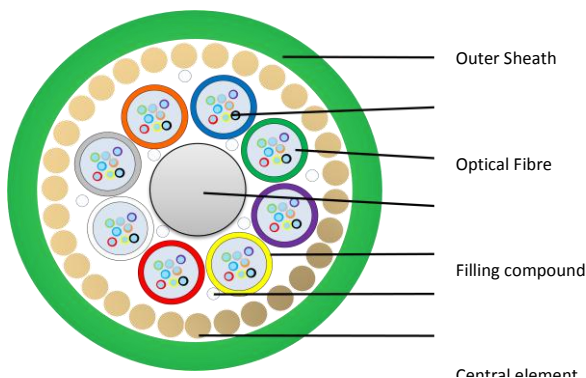
IEC 60794

ED-J-16.00-01

DESCRIPTION AND APPLICATION

Singlemode or Multimode optical fiber cable, with loose tube secondary coating, drycore dielectric central member with dry water-blocking compounds for avoiding water propagation, S-Z stranded structure.

The core is protected with dielectric wire armor and outer LSZH sheath, prepared for petrochemical installation.



CONSTRUCTION

- **Central element:** Central element of dielectric fiberglass
- **Tubes:** Loose tubes of PBT with optical fibers and waterproofing compound at the inside. The cable may incorporate dummy tubes if needed depending on geometry. Color code according to tables 1 and 2.
- **Armoring:** Dielectric Wire Armor. 1mm. FRP. Provides antirrodent protection
- **Outer sheath:** LSZH sheath, aliphatic hydrocarbon, oil resistant
- **Sheath marking:** The cable sheath will be marked at regular intervals with the following information:
 - "CABLE OPTICO – REPSOL– CCSA - Year - Length markers – Nr. Of Fibers | FO | Type of Fiber "
 - Other sheath marks available upon request

FIBRE PROPERTIES

Single mode fiber 9/125 G652D, according to attached fiber specification "SM09 G652D_i - Datasheet".

Multimode fiber 50/125 OM2, according to attached fiber specification "MM50 OM2 G651_i – Datasheet".

Multimode fiber 62,5/125 OM1, according to attached fiber specification "MM62 OM1_i - Datasheet".

All drawings, designs, specifications and particulars of weights, dimensions, etc. in this documentation are only indicative and must not be considered contractual.

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TABLE 1: LOOSE TUBES COLOUR CODE

		Number of fibers				
Tube		8	16	32	64	128
1st Layer	1	Blue	Blue	Blue	Blue	Blue
	2	Green	Green	Green	Green	Green
	3	Black ^f	Black ^f	Black ^f	Violet	Black ^f
	4	Black ^f	Yellow	Yellow	Yellow	Yellow
	5	Black ^f	Red	Red	Red	Red
	6	Black ^f	Black ^f	Black ^f	White	Black ^f
	7				Grey	
	8				Orange	
2nd Layer	1					Blue
	2					Green
	3					Violet
	4					Yellow
	5					Red
	6					White
	7					Grey
	8					Orange
	9					Turquoise
	10					Brown
	11					Pink
	12					Black
Fibres per		4	4	8	8	8

**Note: Black^f tubes are fillers (without optical fibres)*

TABLE 2: OPTICAL FIBERS COLOUR CODE

Fiber number	Color	Fiber number	
1	Green	5	White
2	Red	6	Grey
3	Yellow	7	Orange
4	Blue	8	Black

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MECHANICAL CHARACTERISTICS	Standard	Value
<i>Tensile strength ($\Delta\epsilon_{\text{fibre}} \leq 0,33\%$)</i>	IEC 60794-1-E1	1.500 N
<i>Crush resistance</i>	IEC 60794-1-E3	2.500 N/10cm
<i>Bending radius</i>	IEC 60794-1-E11	D = 20 x Ø cable
<i>Operating temperature</i>	IEC 60794-1-F1	- 30°C / 70°C
<i>Water penetration (inner sheath only)</i>	IEC 60794-1-F5	$L_{\text{pwater}} \leq 3 \text{ m (24 hour)}$
Flame Retardant	IEC 60332-1-2	
Smoke Density	IEC 61034-1-2	
Halogen Free	IEC 60754-1-2	

SIZE AND WEIGHT

Number of fibers	Nominal diameter (mm)	Nominal weight (kg/km)
8 – 16 – 32	12,6 (+0 / -0,3mm.)	182
64	14,2 (+0 / -0,3mm.)	220
128	18,6 (+0 / -0,3mm.)	312

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