

Underwater Fiber Optic Cable

Part Number: **F92881213B**

Applications: Backbone cabling, Direct burial, General purpose armored Outdoor, Long Distance OSP, Rugged environments, Installed in soft bedded trenches or suitably anchored and protected on the sea-floor, Shallow Water Applications to 100 m. Depths, Underwater/Sea Port

General Construction: The cable contains 288 SM G652.D color-coded optical fibers contained in 12 color-coded loose tubes, 24 fibers per each tube. These tubes are filled with a thixotropic gel to prevent the ingress of water and are SZ stranded around a dielectric central strength member. An aluminum moisture barrier tape is applied over the fiber-glass strength yarns which reinforce the cable core. The inner jacket is extruded over the tape. Layer of galvanized steel wires are helically stranded around the inner jacket to serve as an armor and an outer jacket completes the cable structure.

Outer Jacket Material: HDPE
Outer Diameter: 21.5 mm nom.
Weight: 720 kg/km



Design & Materials

Buffer Material:	PBT
Tube Diameter:	2.5 mm nom.
Color Code:	Per TIA/EIA 598-D
Central Strength Member:	FRP
Cabling:	SZ
Strength Elements:	E-Glass Yarns
Inner Jacket Material:	PE
Armor:	Yes
Armoring:	Served Galvanized Steel Wire
Armoring Wire Diameter:	1.25 mm
Aluminum Moisture Barrier:	Yes
Foil Thickness:	80 µm
Fiber Containing Tubes:	12
Number of fibers:	288
Waterblocking:	Dry Waterblocking, Dry Core, Gel between jackets
Rip-Cord:	Yes
Outer Jacket Color:	Black
Marking:	Per request

Standards

Applicable Standards:	IEC 60794-1-21/22, IEC 60794, TIA/EIA-568, EIA/TIA-455, ASTM G154
Installation:	Guidelines as per IEC TR 62691

Performance

Max. Installation Tensile Load :	10000 N max.
Max. fiber strain at MIT:	0.6 %
Max. Residual Tension (MRS) :	3000 N max.
Max. Fiber Strain at MRS.:	0.2 %
Impact Resistance:	10 N*m
Impact Resistance:	3 cycles
Max. Crush Resistance:	800 N/cm
Min. Bend Radius for Installation:	20xD mm
Min. Bend Radius for Operation:	20xD mm
Repeated Bending:	25 cycles
Torsion (L=125 x d):	10 cycles
Drip Test:	80 °C
Max. Operating Temperature:	+70 °C
Min. Operating Temperature:	-40 °C
Max. Installation Temperature:	+45 °C
Min. Installation Temperature:	-20 °C
Max. Storage Temperature:	+70 °C
Min. Storage Temperature:	-40 °C
UV Resistance:	Yes
Waterblocking:	Yes