MULTI LOOSE TUBE UNDER WATER CABLE

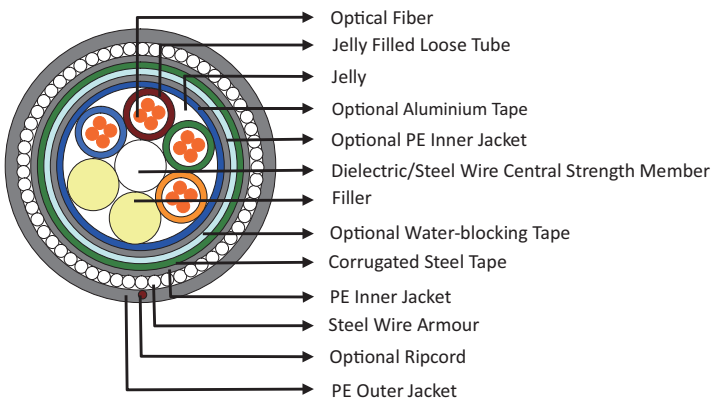
Application

This cable exhibits excellent tensile strength and side press retardancy, having excellent mechanical and environmental performance. Featured by its thin diameter and light weight, it is best suited for underwater condition, junction communication system and long haul communication system.

Description

The cable consists of 5 to 36 fibers containing tubes or fillers stranded in up to 3 layers around a central strength member and bound under a PE jacket. Each tube contains 4 -12 fibers. Solid or stranded steel wire coated with polyethylene is usually used as central strength member. Fiber glass reinforced plastics (FRP) will be used as central strength member if non metallic construction is required. Either aramid yarn or fiber glass is wound around the tube to provide physical protection and tensile strength. The cable incorporates the first layer of PE inner jacket, a layer of corrugated steel tape armour, the second layer of PE inner jacket, a layer of steel wire armour and PE outer jacket. An optional Aluminium moisture tape can be incorporated under the jacket for water blocking and shielding purpose. An optional ripcord is located under the jacket to facilitate jacket removal.

Construction



Physical Properties

Fiber Count	Nominal Weight (kg/km)	Nominal Weight (lb/kft)	Nominal Outer Diameter (mm)	Nominal Outer Diameter (in)	Maximum Pulling/Tensile Load	
					Installation (N/lb)	In Service (N/lb)
2-24	650.0	436.24	20.3	0.798	8000/1800	2650/595
26-36	716.0	480.54	21.6	0.849	8000/1800	2650/595
38-72	1008.0	676.51	25.2	0.991	8000/1800	2650/595

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Mechanical Properties

Minimum Bending Radius:

Under installation: 20×OD

During operation: 0×OD for unarmoured cables; 20×OD for armoured cables.

Temperature Range:

Operating Temperature Range: -40℃(-40℉) to +70℃(+158℉)

Storage Temperature Range: -50℃(-58℉) to +70℃(+158℉)

Maximum Compressive Load: 4000N for unarmoured cables; 6000N for armoured cables

Repeated Impact: 4.4 N.m (J)

Twist (Torsion): 180×10 times, 125×OD

Cyclic Flexing: 25 cycles for armoured cables.; 100 cycles for unarmoured cables.

Crush Resistance: 220N/cm(125lb/in)

Fiber Compliance

Temperature Cycling	IEC60794-1-2-F2	**Repeated Bending**	IEC60794-1-2-E6
Tensile Strength	IEC60794-1-2-E1A	**Torsion**	IEC60794-1-2-E7
Crush	IEC60794-1-2-E3	**Kink**	IEC60794-1-2-E10
Impact	IEC60794-1-2-E4	**Cable Bend**	IEC60794-1-2-E11
		Cool Bend	IEC60794-1-2-E11

Safety Compliance

General Purpose Grade	Flammability Test: OFN(UL1581)
Riser Grade	Flammability Test: OFNR/FT4 (UL1666)
Plenum Grade	Flammability Test: OFNP/FT6(UL 910)
FRPVC Grade	Flammability Test: IEC60332-1
LSZH Grade	Halogen Content Test: IEC 60754-1
	Acidity Test: IEC 60754; Smoke Emission Test: IEC61034-1/2
LSFROH Grade	Halogen Content Test: IEC 60754-1
	Acidity Test: IEC 60754; Smoke Emission Test: IEC61034-1/2
	Flammability Test: IEC60332-1 & IEC 60332-3C/A
FR Grade	Fire Resistance Test**:** IEC 60331 / BS 6387 CWZ

Standard Compliance

Telcordia GR-20 RUS 7 CFR 1755.900 (REA PE-90) ICEA S 87-640

Features

- Loose tube jelly filled for superior fiber protection
- Colored coded fibers and binders for quick and easy identification during installation.
- High tensile strength design
- Superior mechanical and environmental performance
- Rugged and lightweight design
- Durable construction to withstand high water pressure
- Sufficient waterproof to withstand water penetration