CENTRAL LOOSE TUBE UNDER WATER CABLE

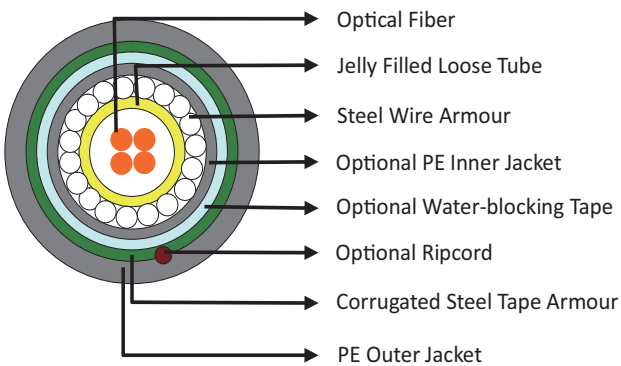
Application

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

Central loose tube cable contains one tube with 2 - 24 fibers, which is filled with water blocking gel. A water swelling tape is helically wrapped around the cable core. Either aramid yarn or fiber glass is wound around the tube to provide physical protection and tensile strength. The cable is jacketed with PE for water protection purpose. For direct burial, steel wire armour and corrugated steel tape armour are applied with an optional PE inner jacket. An optional Aluminium moisture tape can be incorporated under the jacket for water blocking and shielding purpose. An optional ripcord can be put 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)
2-12	352.0	236.24	14.0	0.553	8000/1800	2650/595

CENTRAL LOOSE TUBE UNDER WATER CABLE

Mechanical Properties

Minimum Bending Radius:
Under installation: 20×OD
During operation: 10×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:3000N
Repeated Impact: 4.4 N.m (J)
Twist (Torsion): 180×10 times, 125×OD
Cyclic Flexing: 25 cycles for armoured cables.;
100cycles for unarmoured cables.
Crush Resistance: 263N/cm(150lb/in)

Fiber Compliance

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