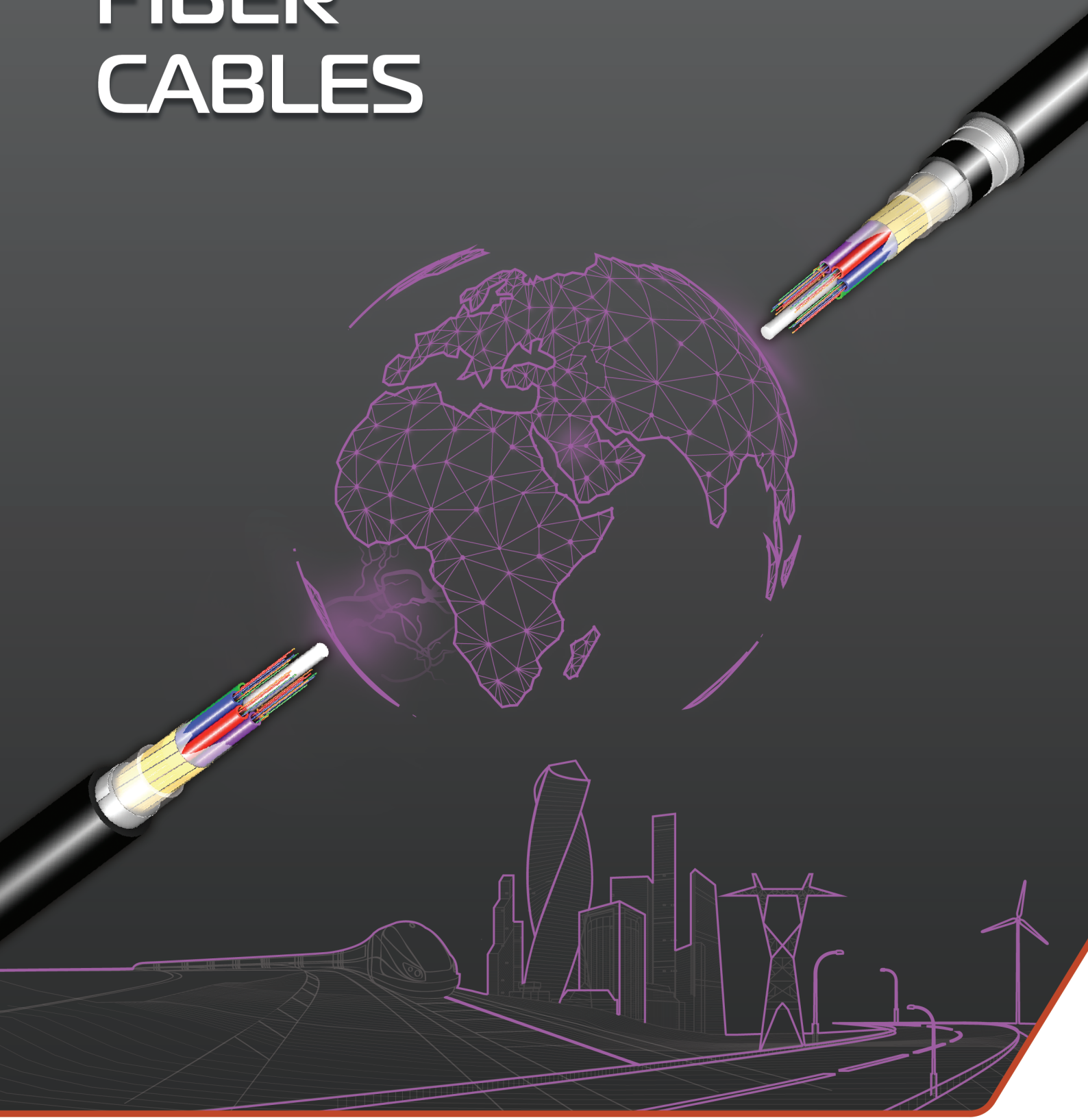
OPTICAL FIBER CABLES



مجموعة كابلات الرياض
Riyadh Cables Group

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OPTICAL FIBRE CABLE
PRODUCT CODES

1	2	3	4	5	6	7	8	9	10	11	12 , 13
Finish Goods	**O.Fiber Cable**	**1st. Sheath Type**	**Cable Type**	**Screen Type**	**Armouring Type**	**IInd Sheath Type**	**No. of Fiber**		**Fiber Mode**	**Type of Fiber**	**Specification**
0	F	E=Polyethylene.	F=Filled Outdoor	S=Metallic Moisture Barrier	0=No. Armouring	0=No. IInd. Sheath	01	2-Fiber	1= 10/125/250	0=DISP.UNSHIFT (G.652B/D)	01=STC(OLD)
							02	4-Fiber			02=ST-STC(OLD)
		R= Halogen Free	B=indoor Cable	N=Non-Metallic	W=G.S.W Armouring	E=Poly-ethylene	03	6-Fiber		1=DISP.SHIFTED (G.653)	03=SCECO (1.8MM LT)
							04	8-Fiber			04=LT-1.8MM (2FLT & 4FLT)
		0=No Sheath	M=Self Supporting Aerial		D=D.S.T Armouring	G=PE plus Graphite	05	10-Fiber		2=NON ZERO DISP. FIBER (As per ITU-T G.655C/656)	05=LT-2.0MM (6FLT & 8FLT)
							06	12-Fiber			06=
				B=No Screen			07	14-Fiber			07=SAUDI ARAMCO (OLD)
							08	16-Fiber			08=
							09	18-Fiber			09=
		P=PVC			C=Corru. ECCS Tape Armouring		10	20-Fiber		4=(G.655C/656+G.652B/D)	10=
			A= Overhead Cable (Shape-8)				11	22-Fiber			11=FRP-1.0(12F/LT-1.5/1.9) STC
							12	24-Fiber			12=FRP-1.0(12F/LT-1.5/1.9)ST-STC
							13	30-Fiber			-
			U= Uni-tube		G=Corru. G.S. Tape Armouring		14	32-Fiber	2= 50/125/250	0=Graded Index 1=Step Index	-
							15	36-Fiber			-
			W=Un-filled				16	48-Fiber			21=FRP-2.0(12F/LT-1.5/1.9)STC
							17	72-Fiber	3= 62.5/125/250	0=Graded Index 1=Step Index	22=FRP-2.0(12F/LT-1.5/1.9)ST-STC
					A=YARN Armouring		18	96-Fiber			23=
			L=LT Indoor				19	128-Fiber			24=MOBILY
							20	60-Fiber	4= 10/125/250 + 62.5/125/250	0= SM DISP. UNSHIFTED + MM Graded Index	25=
			Z=Blown Duct		L=Lead		21	40-Fiber			26=
							22	26-Fiber			27= SAUDI ARAMCO (NEW)
					X=Lead Plus SWA		23	28-Fiber			
			T=Three Sheath				24	34-Fiber			
					P= Aluminoweld		25	38-Fiber			
							26	42-Fiber			
							27	44-Fiber			
							28	46-Fiber			
					U=Under Water		29	50-Fiber			
							30	52-Fiber			
							31	54-Fiber			
							32	56-Fiber			
							33	58-Fiber			
							34	62-Fiber			
							35	64-Fiber			
							36	66-Fiber			
							37	68-Fiber			
							38	70-Fiber			
							39	84-Fiber			
							40	144-Fiber			
							41	108-Fiber			
							42	120-Fiber			
							43	124-Fiber			
							44	132-Fiber			
							45				
							46				

OPTICAL FIBRE PLANT

Based on high technology manufacturing process and the most modern up-to -date state-of-the-art production facilities, the plant started production in 1995, with total commitment in producing high quality Optical Fibre Cables.

RIYADH TELEPHONE CABLES produces all types of Cables in accordance with Saudi as well as other recognized international standards.

SILENT FEATURES OF DESIGN

The Cable is to be used in telecommunication networks on trunk or interex-change routes. The cables may be hauled into ducts and sub-ducts or direct buried by ploughing or trenching. The cable is filled loose tube type for outdoor cable and tight buffer type for indoor cable. For outdoor cable, it may incorporate a metal moisture barrier or may be metal free.

- Non-toxic and dermatologically safe material used.

- Designed for fault free service for forty years without detriment to transmission or operation and maintenance characteristics of the cable.

- Environmental Condition

Ambient temperature	°C	0 to 55
Operating temperature	°C	-40 to 70
Relative humidity	%	5 to 95
Storage temperature	°C	-20 to 70

- Tensile Load (Maximum)

Indoor	Outdoor(D/B&DUCT)	Armoured	Aerial
1KN	2.7 KN	3.0 KN	5KN

- **CRUSH RESISTANCE**

Indoor	Outdoor (D/B & Duct)	Armoured
1 KN/5 min	1.5 KN/10min	2.2 KN/10min

- Cable lengths

Indoor	Outdoor Direct Burial	Outdoor Duct
500/1000m	2000/3000/6000m	2000/3000/6000m

Other lengths can be provided, on request.

- Minimum Bending Radius

  10 x cable diameter (no load)
  15 x cable diameter (full load)

- Longitudinally water tight cable

- Mechanically rugged - Cable meets the stringent test requirement of temperature variation, tensile, crush resistance, impact, repeated bending and bending requirement.

- **DIFFERENT TYPES OF FIBRES USED IN FIBRE OPTIC CABLES**

  (a) Single Mode Fibres:-

  (1) Single Mode Fibre, (Normal Fibre) Complying to ITU-T G.652D
  (2) Single Mode Fibre, Complying to ITU-T G.654
  (3) Single Mode Fibre, Non-Zero Dispersion shifted Complying to ITU- T G 655 & G 656
  (4) Single Mode fibers, complying to ITU-T-G.657 A & B

  (b) Multi Mode Fibres:-

  (1) Multimode Fibre (62.5/125/250 mm)
  (2) Multimode Fibre (50/125/250 mm) Complying to ITU-T G.651

GENERAL OUTDOOR CABLE DESCRIPTION

Loose tube type cables are designed to provide highly reliable transmission quality and an excellent environment required for high class fibre performance. These loose tubes are so designed to keep the fibres free from external mechanical forces present on the cable with the help of thixotropic jelly inside and having enough inside diameter of the loose tube for free movement of fibre. Each cable is designed for continuous operation even in severe environmental conditions and can be manufactured from 2F to 288F cables . These loose tubes are SZ stranded around a central strength member (CSM). Commonly used is FRP (Fibre Reinforced Plastic), but Steel can be used if required. This type of loose tube design is used for all types of outdoor fibre optic cables.

GENERAL INDOOR CABLE DESCRIPTION

Loose Buffer type cables are designed for indoor use to provide highly reliable transmission quality in a controlled environment. Each cable is designed for continuous operation and can be manufactured from 2 fibres to l44 fibres. These loose buffers are SZ stranded in one or two layers around a central strength member (CSM). Commonly used is FRP (Fibre Reinforced Plastic),
This type of buffer design ıs used for all types of indoor fibre optic cables.
This type of cable is easy to handle and install.
Loose tube design, dry core: single mode (G652D) indoor cable from 2 F to144 F.

STANDARD COLOUR CODING

Our standard colour coding for fibres (12-colour) are; Blue, Orange, Green, Brown, Grey, White, Red, Black, Yellow, Violet, Pink, Turquiose and our loose tube colours commonly used are; 1st. Blue, 2nd. Orange, and rest all natural or the loose tube colour sequence same as fibre colour sequence or as per customer requirement.

APPLICABLE STANDARDS

Our fibres meet all the requirements of ITU - T recommendations and our cable meets all the requirements of IEC - 60793 & 60794, EN - 187000, EIA/TIA Standards.

STANDARD SPECIFICATIONS

Our cable meets all the Local/International standard specifications such as STC specifications and , Saudi Aramco and Saudi Electric Company etc. See more information for ordering of our standard fibre optic cable design in this catalogue.

Cables with different values to those listed can be designed to meet individual customers specifications if required.

COMPANY QUALITY POLICY

Being a major manufacturer of a variety of electrical cables, wires, and conducting systems, RIYADH CABLES GROUP Co. recognizes the vital role it plays in setting industry standards for Quality management, workplace health & safety and environmental protection. RIYADH CABLES GROUP Co. core principles revolve around product and service quality, risk reduction, pollution prevention and responsible operations management with community benefit in its sight. The requirements of all interested parties are clearly understood so that our products and service can be delivered in a timely and professional manner.

To achieve this mission, RIYADH CABLES GROUP Co. has developed a management system employing ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 standards. Through this system, RIYADH CABLES GROUP Co. is able to maintain comprehensive risk assessment, from health and safety to environmental evaluation, while providing quality products and services surpassing our clients' high expectations.

To meet the management system requirements, we have set our objectives and resources to be committed to the following:

Complying with applicable Quality requirements, Environmental, and Health and Safety regulations.

• Striving to meet customer requirements while delivering high quality products and services in a timely manner.

• Responding promptly to community concerns regarding QHSE and addressing them proactively within our procedures.

• Integrating QHSE considerations into our business plans and decision-making processes.

• Utilizing standard process safety and management techniques such as Safety Audits, Analysis, and Operability Studies while keeping a record to minimize QHSE issues associated with our operations and preventing their reoccurrence.

• Equipping our facilities with means and resources to respond to QHSE emergencies and commitment to consultation and participation of workers.

• Promoting QHSE responsibility among our employees of all levels via incentivizing QHSE responsible attitude and imposing mandatory training pre-requisites.

• Effectively communicating our policies and procedures to our employees, customers, partners, contractors and suppliers.

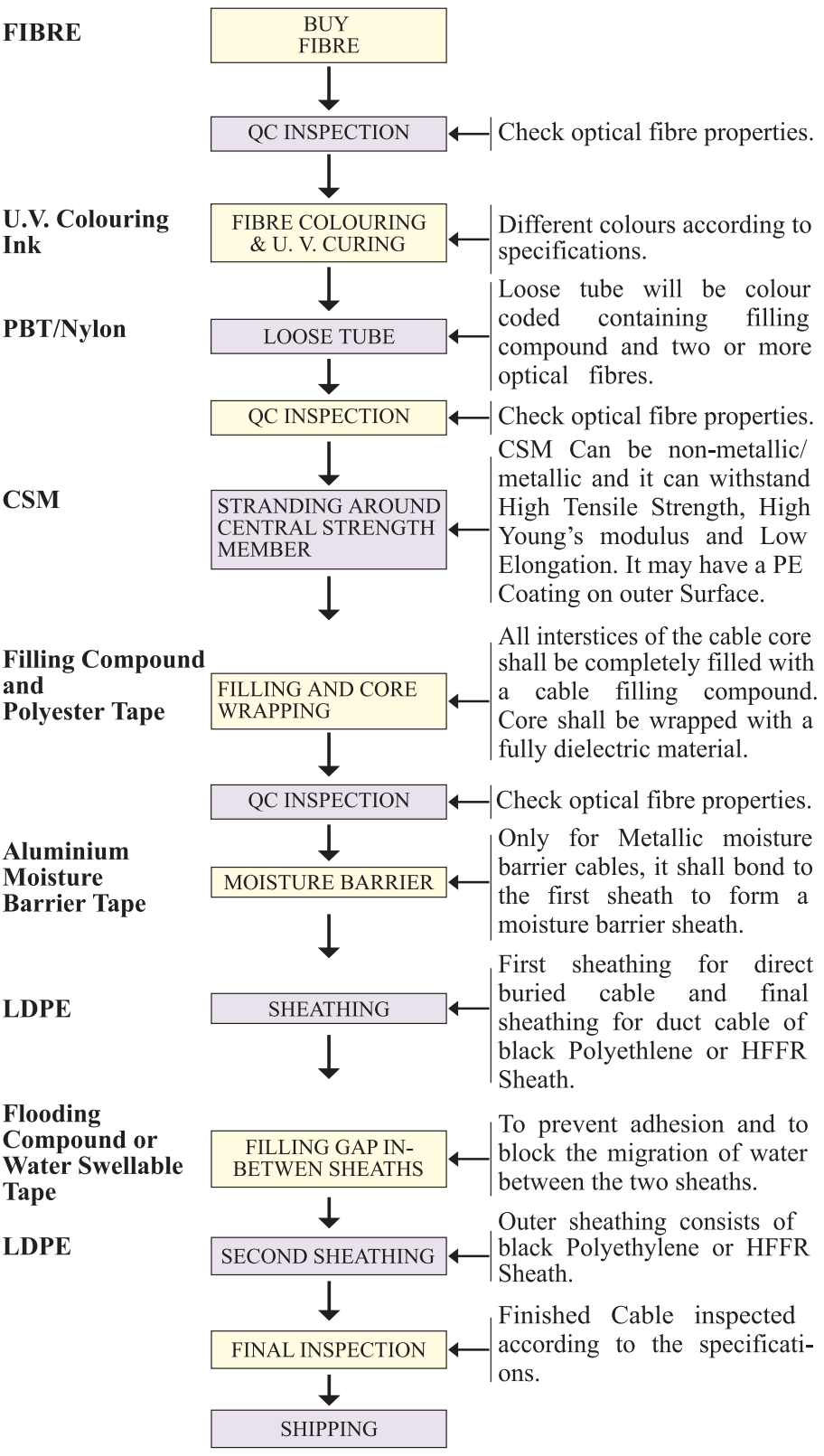
• Periodically reviewing our Policy, objectives and targets, and measuring our QHSE performance for improvement.

• Providing organizational structure, support and directives towards achieving these objectives.

Rev. Date: 01/08/2018 Rev. No. 08 Format No. QHSE/A/Policy/01

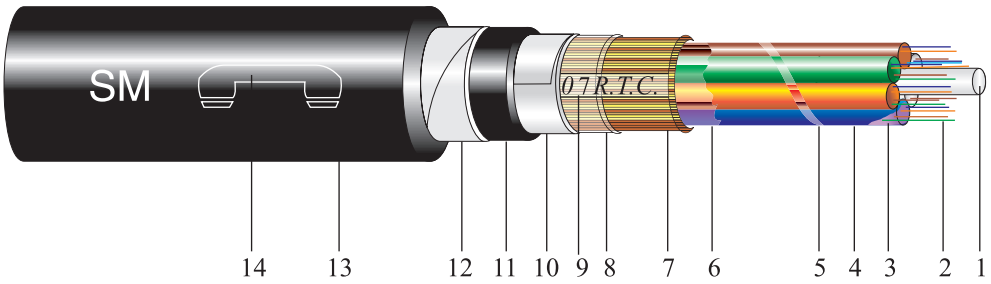
CEO Approval;

PROCESS FLOW CHART
FOR OUTDOOR OPTICAL FIBRE CABLES



OUTDOOR DIRECT BURIED CABLE

METALLIC PRODUCT CODE : FEFSE



1. CSM
2. FIBRE
3. THIXOTROPIC JELLY
4. LOOSE TUBE
5. BINDER TAPE
6. FILLING COMPOUND
7. HIGH STRENGTH YARN
8. CORE WRAPPING TAPE
9. IDENTIFICATION TAPE
10. ALUMINIUM MOISTURE BARRIER
11. INNER P.E.SHEATH BLACK
12. FLOODING COMPOUND OR SWELLABLE TAPE
13. OUTER P.E.SHEATH BLACK
14. SHEATH MARKING

DESCRIPTION

Primary coated Single Mode Fibre, filled, loose tubes, assembled around the Central Strength Member (CSM), filled core, metallic Moisture Barrier, Polyethylene sheathed optical fibre telecommunication cables, complying with National and International Standard Specifications.

APPLICATION

Single Mode Optical Fibre Cables generally used for out-door telecommunication networks on trunk or inter-exchange routes.

RELATED SPECIFICATION

IEC-60793
IEC-60794

STANDARD CABLE DIMENSIONS FEFSE

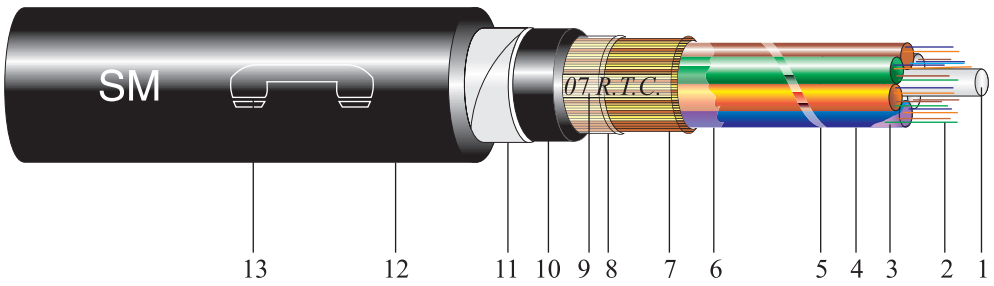
SINGLE MODE FIBER CABLES WITH ITU-T-G.652D

RTC Product Code	Number of Fibers	Outer Diameter Approx. (mm)	Net Weight Approx. (kg/km)
0FEFS0E031021	6	13.2	152
0FEFS0E041021	8	13.2	152
0FEFS0E051021	10	13.2	152
0FEFS0E061021	12	13.2	152
0FEFS0E081021	16	13.2	152
0FEFS0E101021	20	13.2	152
0FEFS0E121021	24	13.2	152
0FEFS0E151021	36	13.2	152
0FEFS0E161021	48	13.2	152
0FEFS0E201021	60	13.2	152
0FEFS0E381021	70	13.2	152
0FEFS0E171021	72	13.2	152
0FEFS0E391021	84	13.7	163
0FEFS0E181021	96	14.2	176
0FEFS0E191021	128	16.0	221
0FEFS0E401021	144	16.6	236

Note: Cable dimensions may vary according to customer's requirement.

OUTDOOR DIRECT BURIED CABLE

METAL FREE — PRODUCT CODE : FEFNE



1. CSM
2. FIBRE
3. THIXOTROPIC JELLY
4. LOOSE TUBE
5. BINDER TAPE
6. FILLING COMPOUND
7. HIGH STRENGTH YARN
8. CORE WRAPPING TAPE
9. IDENTIFICATION TAPE
10. INNER P.E. SHEATH BLACK
11. FLOODING COMPOUND OR SWELLABLE TAPE
12. OUTER P.E.SHEATH BLACK
13. SHEATH MARKING

DESCRIPTION

Primary coated Single Mode Fibre, filled, loose tubes, assembled around the Central Strength Member (CSM), filled core, core wrap, non-metallic Moisture Barrier, Polyethylene sheathed optical fiber telecommunication cables, complying with National and International Standard Specifications.

APPLICATION

Single Mode Optical Fibre Cables generally used for out-door telecommunication networks on trunk or inter-exchange routes.

RELATED SPECIFICATION

IEC-60793
IEC-60794

STANDARD CABLE DIMENSIONS FEFNE

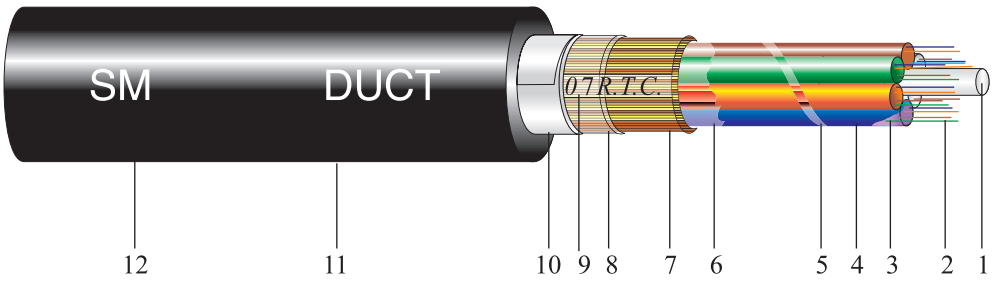
SINGLE MODE FIBER CABLES WITH ITU-T-G.652D

RTC Product Code	Number of Fibers	Outer Diameter Approx. (mm)	Net Weight Approx. (kg/km)
0FEFN0E031021	6	12.3	119
0FEFN0E041021	8	12.3	119
0FEFN0E051021	10	12.3	119
0FEFN0E061021	12	12.3	119
0FEFN0E081021	16	12.3	119
0FEFN0E101021	20	12.3	119
0FEFN0E121021	24	12.3	119
0FEFN0E151021	36	12.3	119
0FEFN0E161021	48	12.3	119
0FEFN0E201021	60	12.3	119
0FEFN0E381021	70	12.3	119
0FEFN0E171021	72	12.3	119
0FEFN0E391021	84	12.8	131
0FEFN0E181021	96	13.3	141
0FEFN0E191021	128	15.1	182
0FEFN0E401021	144	15.7	197

Note: Cable dimensions may vary according to customer's requirement.

OUTDOOR DUCT CABLE

METALLIC — PRODUCT CODE : FEFS



1. CSM
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4. LOOSE TUBE
5. BINDER TAPE
6. FILLING COMPOUND
7. HIGH STRENGTH YARN
8. CORE WRAPPING TAPE
9. IDENTIFICATION TAPE
10. ALUMINIUM MOISTURE BARRIER
11. OUTER PE SHEATH BLACK
12. SHEATH MARKING

DESCRIPTION

Primary coated Single Mode Fibre, filled, loose tubes, assembled around the Central Strength Member (CSM), filled core, metallic Moisture Barrier, Polyethylene sheathed optical fibre telecommunication cables, complying with National and International Standard Specifications.

APPLICATION

Single Mode Optical Fibre Cables generally used for out-door telecommunication networks on trunk or inter-exchange routes.

RELATED SPECIFICATION

IEC-60793
IEC-60794

STANDARD CABLE DIMENSIONS FEFS

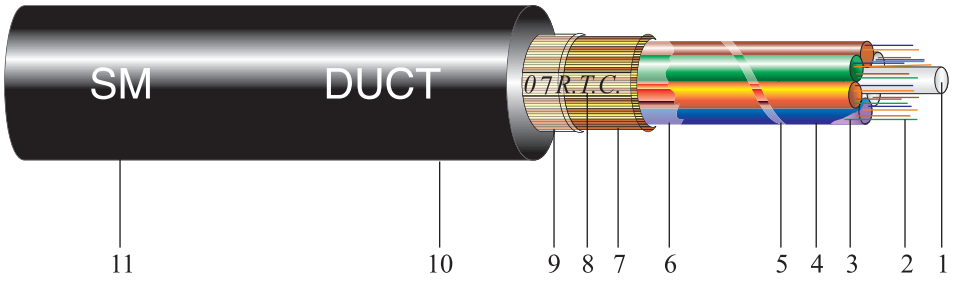
SINGLE MODE FIBER CABLES WITH ITU-T-G.652D

RTC Product Code	Number of Fibers	Outer Diameter Approx. (mm)	Net Weight Approx. (kg/km)
0FEFS00031021	6	10.6	105
0FEFS00041021	8	10.6	105
0FEFS00051021	10	10.6	105
0FEFS00061021	12	10.6	105
0FEFS00081021	16	10.6	105
0FEFS00101021	20	10.6	105
0FEFS00121021	24	10.6	105
0FEFS00151021	36	10.6	105
0FEFS00161021	48	10.6	105
0FEFS00201021	60	10.6	105
0FEFS00381021	70	10.6	105
0FEFS00171021	72	10.6	105
0FEFS00391021	84	11.1	115
0FEFS00181021	96	11.6	127
0FEFS00191021	128	13.4	165
0FEFS00401021	144	14.0	178

Note: Cable dimensions may vary according to customer's requirement.

OUTDOOR DUCT CABLE

METAL FREE — PRODUCT CODE : FEFN



1. CSM
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6. FILLING COMPOUND
7. HIGH STRENGTH YARN
8. IDENTIFICATION TAPE
9. CORE WRAPPING TAPE
10. OUTER P.E.SHEATH BLACK
11. SHEATH MARKING

DESCRIPTION

Primary coated Single Mode Fibre, filled, loose tubes, assembled around the Central Strength Member (CSM), filled core, core wrap, non-metallic Moisture Barrier, Polyethylene sheathed optical fibre telecommunication cables, complying with National and International Standard Specifications.

APPLICATION

Single Mode Optical Fibre Cables generally used for out-door telecommunication networks on trunk or inter-exchange routes.

RELATED SPECIFICATION

IEC-60793
IEC-60794

STANDARD CABLE DIMENSIONS FEFN

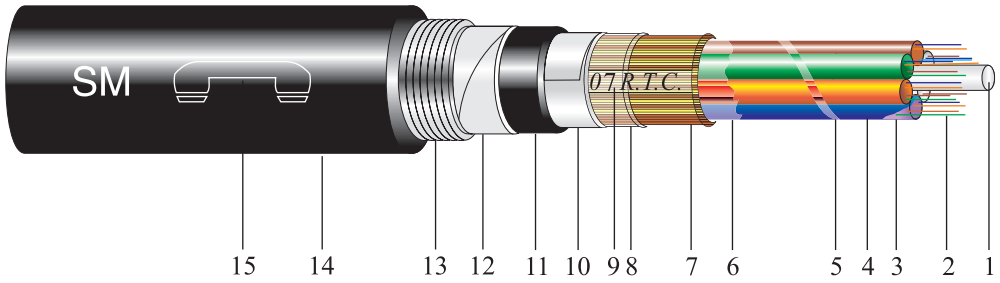
SINGLE MODE FIBER CABLES WITH ITU-T-G.652D

RTC Product Code	Number of Fibers	Outer Diameter Approx. (mm)	Net Weight Approx. (kg/km)
0FEFN00031021	6	9.7	75
0FEFN00041021	8	9.7	75
0FEFN00051021	10	9.7	75
0FEFN00061021	12	9.7	75
0FEFN00081021	16	9.7	75
0FEFN00101021	20	9.7	75
0FEFN00121021	24	9.7	75
0FEFN00151021	36	9.7	75
0FEFN00161021	48	9.7	75
0FEFN00201021	60	9.7	75
0FEFN00381021	70	9.7	75
0FEFN00171021	72	9.7	75
0FEFN00391021	84	10.2	85
0FEFN00181021	96	10.7	92
0FEFN00191021	128	12.5	125
0FEFN00401021	144	13.1	136

Note: Cable dimensions may vary according to customer's requirement.

OUTDOOR DIRECT BURIED CABLE

CORRUGATED STEEL TAPE ARMOURED PRODUCT CODE : FEFSCE



1. CSM
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7. HIGH STRENGTH YARN
8. CORE WRAPPING TAPE
9. IDENTIFICATION TAPE
10. ALUMINIUM MOISTURE BARRIER
11. INNER P.E. SHEATH BLACK
12. FLOODING COMPOUND OR SWELLABLE TAPE
13. CORRUGATED STEEL TAPE
14. OUTER P.E. SHEATH BLACK
15. SHEATH MARKING

DESCRIPTION

Primary coated Single Mode Fibre, filled, loose tubes, assembled around the Central Strength Member (CSM), filled core, metallic Moisture Barrier,Inner Polyethylene sheath, Corrugated Steel Tape Armoured, Polyethylene sheathed optical fibre telecommunication cables, complying with National and International Standard Specifications.

APPLICATION

Single Mode Optical Fibre Cables generally used for out-door telecommunication networks on trunk or inter-exchange routes.

RELATED SPECIFICATION

IEC-60793
IEC-60794

STANDARD CABLE DIMENSIONS FEFSCE

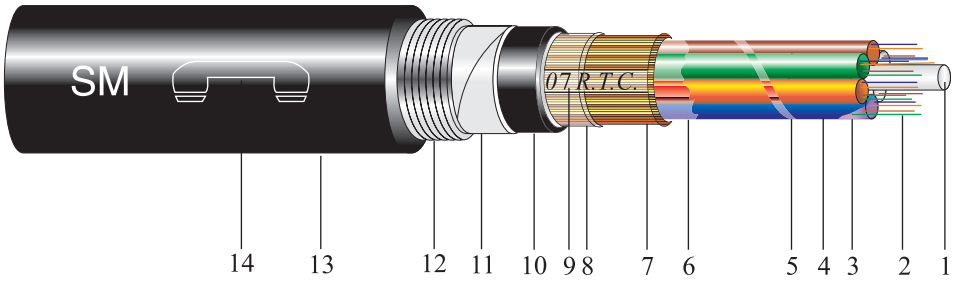
SINGLE MODE FIBER CABLES WITH ITU-T-G.652D

RTC Product Code	Number of Fibers	Outer Diameter Approx. (mm)	Net Weight Approx. (kg/km)
0FEFSCE031021	6	16.1	244
0FEFSCE041021	8	16.1	244
0FEFSCE051021	10	16.1	244
0FEFSCE061021	12	16.1	244
0FEFSCE081021	16	16.1	244
0FEFSCE101021	20	16.1	244
0FEFSCE121021	24	16.1	244
0FEFSCE151021	36	16.1	244
0FEFSCE161021	48	16.1	244
0FEFSCE201021	60	16.1	244
0FEFSCE381021	70	16.1	244
0FEFSCE171021	72	16.1	244
0FEFSCE391021	84	16.6	294
0FEFSCE181021	96	17.1	311
0FEFSCE191021	128	18.9	387
0FEFSCE401021	144	19.5	410

Note: Cable dimensions may vary according to customer's requirement.

OUTDOOR DIRECT BURIED CABLE

CORRUGATED STEEL TAPE ARMOURED PRODUCT CODE : FEFNCE



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7. HIGH STRENGTH YARN
8. CORE WRAPPING TAPE
9. IDENTIFICATION TAPE
10. INNER P.E. SHEATH BLACK
11. FLOODING COMPOUND
12. CORRUGATED STEEL TAPE
13. OUTER P.E. SHEATH BLACK
14. SHEATH MARKING

DESCRIPTION

Primary coated Single Mode Fibre, filled, loose tubes, assembled around the Central Strength Member (CSM), filled core, non-metallic Moisture Barrier,Inner Polyethylene sheath, Corrugated Steel Tape Armoured, Polyethylene sheathed optical fibre telecommunication cables, complying with National and International Standard Specifications.

APPLICATION

Single Mode Optical Fibre Cables generally used for out-door telecommunication networks on trunk or inter-exchange routes.

RELATED SPECIFICATION

IEC-60793
IEC-60794

STANDARD CABLE DIMENSIONS FEFNCE

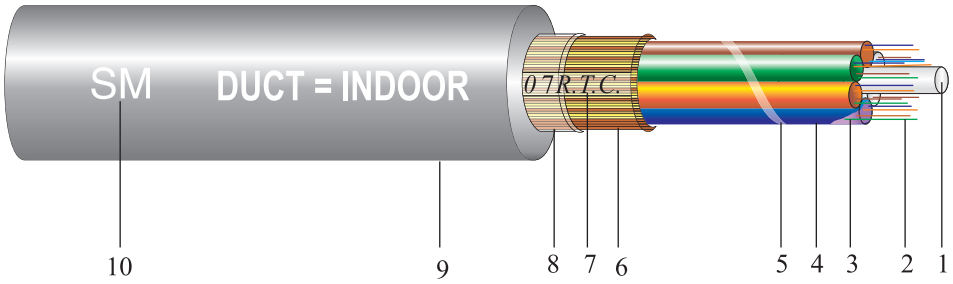
SINGLE MODE FIBER CABLES WITH ITU-T-G.652D

RTC Product Code	Number of Fibers	Outer Diameter Approx. (mm)	Net Weight Approx. (kg/km)
0FEFNCE031021	6	15.2	208
0FEFNCE041021	8	15.2	208
0FEFNCE051021	10	15.2	208
0FEFNCE061021	12	15.2	208
0FEFNCE081021	16	15.2	208
0FEFNCE101021	20	15.2	208
0FEFNCE121021	24	15.2	208
0FEFNCE151021	36	15.2	208
0FEFNCE161021	48	15.2	208
0FEFNCE201021	60	15.2	208
0FEFNCE381021	70	15.2	208
0FEFNCE171021	72	15.2	208
0FEFNCE391021	84	15.7	212
0FEFNCE181021	96	16.2	227
0FEFNCE191021	128	18	279
0FEFNCE401021	144	18.6	305

Note: Cable dimensions may vary according to customer's requirement.

OUTDOOR / INDOOR (LOOSE TUBE DESIGN) CABLES

METAL FREE **PRODUCT CODE : FRLN**



1. CSM
2. FIBRE
3. THIXOTROPIC JELLY
4. LOOSE TUBE
5. BINDER TAPE
6. HIGH STRENGTH YARN
7. IDENTIFICATION TAPE
8. CORE WRAPPING TAPE
9. OUTER HFFR SHEATH
10. SHEATH MARKING

DESCRIPTION

Primary coated Single Mode Fibre, filled, loose tubes, assembled around the Central Strength Member (CSM) , core wrap, non-metallic Moisture Barrier, Halogen free flame Retardent sheathed optical fibre telecommunication cables, complying with National and International Standard Specifications.

APPLICATION

Single Mode Optical Fibre Cables generally used for out-door/in-door telecommunication networks on trunk or inter-exchange routes.

RELATED SPECIFICATION

IEC-60793
IEC-60794

STANDARD CABLE DIMENSIONS FRLN

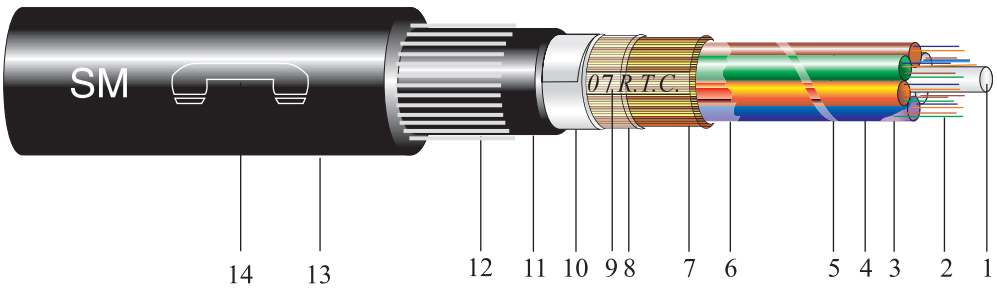
SINGLE MODE FIBER CABLES WITH ITU-T-G.652D

RTC Product Code	Number of Fibers	Outer Diameter Approx. (mm)	Net Weight Approx. (kg/km)
0FRLN00031021	6	9.5	91
0FRLN00041021	8	9.5	91
0FRLN00051021	10	9.5	91
0FRLN00061021	12	9.5	91
0FRLN00081021	16	9.5	91
0FRLN00101021	20	9.5	91
0FRLN00121021	24	9.5	91
0FRLN00151021	36	9.5	91
0FRLN00161021	48	9.5	91
0FRLN00201021	60	9.5	91
0FRLN00381021	70	9.5	91
0FRLN00171021	72	9.5	91

Note: Cable dimensions may vary according to customer's requirement.

OUTDOOR DIRECT BURIED GALVANISED STEEL WIRE ARMOR CABLE

GALVANISED STEEL WIRE ARMORED: PRODUCT CODE : FEFSWE



1. CSM
2. FIBRE
3. THIXOTROPIC JELLY
4. LOOSE TUBE
5. BINDER TAPE
6. FILLING COMPOUND
7. HIGH STRENGTH YARN
8. CORE WRAPPING TAPE
9. IDENTIFICATION TAPE
10. ALUMINIUM MOISTURE BARRIER (OPTIONAL)
11. INNER/PE/ PVC / LSF SHEATH
12. G. S WIRE ARMOURING
13. OUTER PE/LSF/PVC/SHEATH
14. SHEATH MARKER

DESCRIPTION

Primary coated single mode fiber , filled, loose tubes, assembled around the Central Strength Member (CSM),filled core metallic moisture barrier, inner polyethylene sheath, galvanized steel wire armour and polyethylene outer sheathed optical fiber optic telecommunication cables complying with National and international Standards.

APPLICATION

Single Mode Optical fiber cable generally used for out-door telecommunication network or trunk or inter-exchange routes.

RELETED SPECIFICATION

IEC-60793
IEC-60794

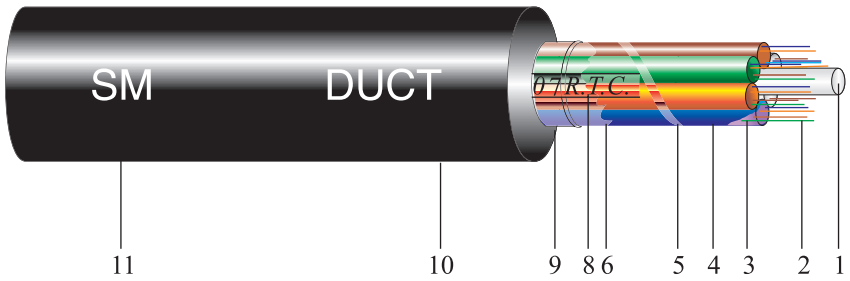
STANDARD CABLE DIMENSION

SINGLE MODE FIBER CONFIRMING TO ITU-T- G.652D

RTC Product code	Number of fibers	Outer diameter approx. (mm)	Net Weight Approx. (kg/km)
0FEFSWE031021	6	19.0	560
0FEFSWE041021	8	19.0	560
0FEFSWE051021	10	19.0	560
0FEFSWE061021	12	19.0	560
0FEFSWE081021	16	19.0	560
0FEFSWE101021	20	19.0	560
0FEFSWE121021	24	19.0	560
0FEFSWE151021	36	19.0	560
0FEFSWE161021	48	19.0	560
0FEFSWE201021	60	19.0	560
0FEFSWE171021	72	19.0	560

OUTDOOR MICRO DUCT CABLE

METAL FREE **PRODUCT CODE : FEZN**



1. CSM
2. FIBRE
3. THIXOTROPIC JELLY
4. LOOSE TUBE
5. BINDER TAPE
6. FILLING COMPOUND
8. IDENTIFICATION TAPE
9. CORE WRAPPING TAPE
10. OUTER P.E.SHEATH BLACK
11. SHEATH MARKING

DESCRIPTION

Primary coated single mode fiber , filled, loose tubes, assembled around the Central Strength Member (CSM),filled core,wrap, non-metallic moisture barrier polyethylene sheathed optical fiber telecommunication cables complying with National and international Standards.

APPLICATION

Single Mode Optical fiber cable generally used for micro-duct installations for telecommunication FTTH projects optimized for blown technology reduced cable outer diameters, reduced cable weight and low cost than traditional cables.

RELETED SPECIFICATION

IEC-60793
IEC-60794

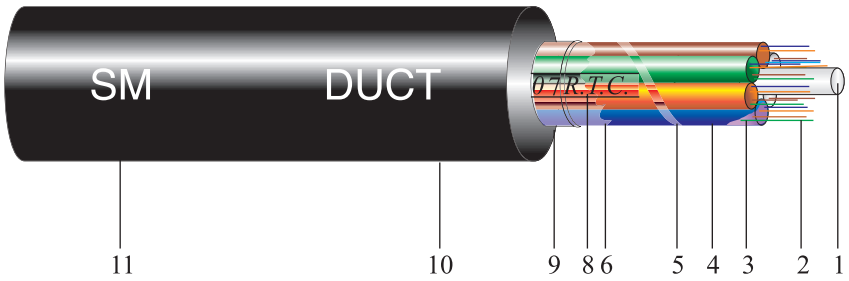
STANDARD CABLE DIMENSION

SINGLE MODE FIBER CONFIRMING TO ITU-T- G.652D

RTC Product code	Number of fibers	Outer diameter approx. (mm)	Net Weight Approx. (kg/km)
0FEZN00011021	2	7.0	37
0FEZN00021021	4	7.0	37
0FEZN00031021	6	7.0	37
0FEZN00041021	8	7.0	37
0FEZN00051021	10	7.0	37
0FEZN00061021	12	7.0	37
0FEZN00081021	16	7.0	37
0FEZN00101021	20	7.0	37
0FEZN00121021	24	7.0	37
0FEZN00151021	36	7.0	37
0FEZN00161021	48	7.0	37
0FEZN00201021	60	7.0	37
0FEZN00171021	72	7.0	37
0FEZN00181021	96	7.8	50
0FEZN00401021	144	9.8	76

OUTDOOR DRY CORE MICRO DUCT CABLE

METAL FREE PRODUCT CODE : FENN



1. CSM
2. FIBRE
3. THIXOTROPIC JELLY
4. LOOSE TUBE
5. BINDER TAPE
6. FILLING COMPOUND
8. IDENTIFICATION TAPE
9. CORE WRAPPING TAPE
10. OUTER P.E.SHEATH BLACK
11. SHEATH MARKING

DESCRIPTION

Primary coated single mode fiber , filled, loose tubes, assembled around the Central Strength Member (CSM),Dry core, core wrap, non-metallic moisture barrier polyethylene sheathed optical fiber telecommunication cables complying with National and international Standards.

APPLICATION

Single Mode Optical fiber cable generally used for micro-duct installations for telecommunication FTTH projects optimized for blown technology reduced cable outer diameters, reduced cable weight, easy to handle due to dry core and low cost than traditional cables.

RELETED SPECIFICATION

IEC-60793
IEC-60794
STC TS-2116

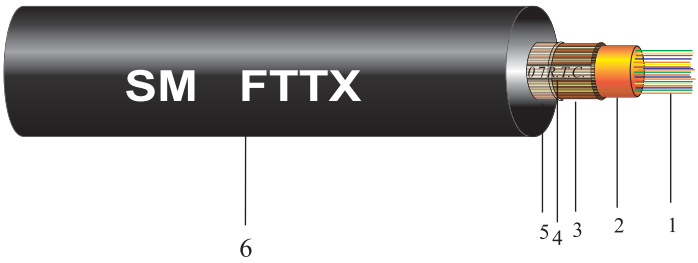
STANDARD CABLE DIMENSION

SINGLE MODE FIBER CONFIRMING TO ITU-T- G.657A

RTC Product code	Number of fibers	Outer diameter approx. (mm)	Net Weight Approx. (kg/km)
0FMDN002657A	2	7.0	37
0FMDN004657A	4	7.0	37
0FMDN012657A	12	7.0	37
0FMDN024657A	24	7.0	37
0FMDN036657A	36	7.0	37
0FMDN048657A	48	7.0	37
0FMDN072657A	72	7.0	37
0FMDN084657A	84	7.3	42
0FMDN096657A	96	7.8	50
0FMDN0144657A	144	9.8	76
0FMDN028857A	288	13.9	150

OUTDOOR DRY CORE MINI TYPE (CENTRAL TUBE DESIGN) CABLE

METAL FREE **PRODUCT CODE : FCDN**



1. FIBER
2. HIGH STRENGTH YARN
3. IDENTIFICATION TAPE
4. CORE WRAPPING TAPE
5. OUTER DE SHEATH
6. SHEATH MARKING

DESCRIPTION

Primary coated single mode fiber , Single filled loose tube, Dry core, core wrap, non-metallic moisture barrier polyethylene sheathed optical fiber telecommunication cables complying with National and international Standards.

APPLICATION

Single Mode Optical fiber cable generally used for micro-duct installations for telecommunication FTTH projects optimized for blown technology reduced cable outer diameters, reduced cable weight, easy to handle due to dry core and low cost than traditional cables.

RELETED SPECIFICATION

IEC-60793
IEC-60794
STC TS-2115

STANDARD CABLE DIMENSION

SINGLE MODE FIBER CONFIRMING TO ITU-T G.657A

RTC Product code	Number of fibers	Outer diameter approx. (mm)	Net Weight Approx. (kg/km)
0FCDN002657A	2	4.0	14.0
0FCDN004657A	4	4.0	19
0FCDN012657A	12	4.0	19
0FCDN024657A	24	4.0	19

SINGLE MODE FIBER CABLE

Environmental

Relative Humidity	5 to 95 %
Operating temperature	-10°C to +70°C
Storage temperature	-10°C to +70°C
Installation temperature	-10°C to +70°C

FIBERS COMPLYING TO LATEST ITU-T RECOMMENDATION G.657A

FIBER ATTRIBUTES		
Attribute	Details	Values
Mode field diameter	Wavelength	1310nm
	Range of nominal values	8.6 ~ 9.5 µm
	Tolerance	± 0.6 µm
Cladding diameter	Nominal	125.0 µm
	Tolerance	± 1 µm
Core concentricity error	Maximum	0.7 µm
Cladding noncircularity	Maximum	1.0 %
Cable cut-off wavelength	Maximum	1260 nm
Chromatic dispersion coefficient	(λ_0-zero disp wavelength range)	1300nm ~ 1324 nm
	(S_{0max}.-Max. Zero disp. slope)	≤ 0.092 ps/nm² x km
	@1285~1300nm	≤ 3.5 ps/nm.km
	@1550nm	≤ 18.0 ps/nm.km
Attenuation coefficient	Maximum at 1310 nm	≤ 0.36 dB/km
	Maximum at 1550 nm	≤ 0.25 dB/km
PMD Co-efficient	Maxmimum PMD	≤ 0.20 ps/√km

Environmental

Relative Humidity	5 to 95 %
Operating temperature	-10°C to +70°C
Storage temperature	-10°C to +70°C
Installation temperature	-10°C to +70°C

FIBERS COMPLYING TO LATEST ITU-T RECOMMENDATION G.652D

FIBER ATTRIBUTES		
Attribute	Details	Values
Mode field diameter	Wavelength	1310nm
	Range of nominal values	8.6 ~ 9.2 µm
	Tolerance	± 0.4 µm
Cladding diameter	Nominal	125.0 µm
	Tolerance	± 7 µm
Core concentricity error	Maximum	0.6 µm
Cladding noncircularity	Maximum	1.0 %
Cable cut-off wavelength	Maximum	1260 nm
Chromatic dispersion coefficient	(λ_0-zero disp wavelength range)	1300nm ~ 1324 nm
	($S_{0max.}$-Max. Zero disp. slope)	≤ 0.092 ps/nm² x km
	@1285~1300nm	≤ 3.5 ps/nm.km
	@1550nm	≤ 18.0 ps/nm.km
Attenuation coefficient	Maximum at 1310 nm	≤ 0.36 dB/km
	Maximum at 1550 nm	≤ 0.23 dB/km
PMD Co-efficient	Maxmimum PMD	≤ 0.20 ps/√km

Environmental

Relative Humidity	5 to 95 %
Operating temperature	-10°C to +70°C
Storage temperature	-10°C to +70°C
Installation temperature	-10°C to +70°C

FIBERS COMPLYING TO LATEST ITU-T RECOMMENDATION G.656

FIBER ATTRIBUTES		
Attribute	Details	Values
Mode field diameter	Wavelength	1550nm
	Range of nominal values	7.0 ~ 11.0 µm
	Tolerance	± 0.7 µm
Cladding diameter	Nominal	125.0 µm
	Tolerance	± 1 µm
Core concentricity error	Maximum	0.8 µm
Cladding noncircularity	Maximum	2.0 %
Cable cut-off wavelength	Maximum	1450 nm
Chromatic dispersion coefficient	Minimum value of D_{min}	5.5 ps/nm.km
Wavelength range:1530-1565nm	Maximum value of D_{max}	8.9 ps/nm.km
Chromatic dispersion coefficient	Minimum value of D_{min}	6.9 ps/nm.km
Wavelength range:1565-1625nm	Maximum value of D_{max}	11.4 ps/nm.km
Attenuation coefficient	Maximum at 1550 nm	≤ 0.25 dB/km
	Maximum at 1625 nm	≤ 0.30 dB/km
PMD Co-efficient	Maxmimum PMD	≤ 0.20 ps/√km

Environmental

Relative Humidity	5 to 95%
Operating temperature	-10°C to +70°C
Storage temperature	-10°C to +70°C
Installation temperature	-10°C to +60°C

MULTIMODE FIBER (50/125/250microns)

Fiber Attributes		
Attribute	**Details**	**Values**
Core	Material	Ge-doped silica glass
	Diameter	50 µm
	Tolerance	± 3 µm
	Non circularity	< 6%
Cladding diameter	Material	Silica glass
	Nominal	125.0 µm
	Tolerance	± 3 µm
	Non circularity	< 2%
Coating diameter (Uncoloured Fiber)	Material	Dual U.V. Acrylate
	Nominal	250 µm
	Tolerance	± 15 µm
	Concentricity Error	12.5 µm
Attenuation coefficient	Maximum at 850 nm	≤ 3.4 dB/km
	Average at 850 nm	≤ 3.0 dB/km
	Maximum at 1300 nm	≤ 1.5 dB/km
	Average at 1300 nm	≤ 1.0 dB/km
Numerical Aperture	Fiber supplier certificate	0.20 ± 0.02
Bandwidth @ 850nm	Fiber supplier certificate	≥ 400 Mhz/km
Bandwidth @ 1300nm	Fiber supplier certificate	≥ 500 Mhz/km

Environmental

Relative Humidity	5 to 95%
Operating temperature	-10°C to +70°C
Storage temperature	-10°C to +70°C
Installation temperature	-10°C to +60°C

MULTIMODE FIBER (62.5/125/250microns)

Fiber Attributes		
Attribute	**Details**	**Values**
Core	Material	Ge-doped silica glass
	Diameter	62.5 µm
	Tolerance	± 3 µm
	Non circularity	< 6%
Cladding diameter	Material	Silica glass
	Nominal	125.0 µm
	Tolerance	± 3 µm
	Non circularity	< 2%
Coating diameter (Uncoloured Fiber)	Material	Dual U.V. Acrylate
	Nominal	250 µm
	Tolerance	± 15 µm
	Concentricity Error	12.5 µm
Attenuation coefficient	Maximum at 850 nm	≤ 3.4 dB/km
	Average at 850 nm	≤ 3.0 dB/km
	Maximum at 1300 nm	≤ 1.5 dB/km
	Average at 1300 nm	≤ 1.0 dB/km
Numerical Aperture	Fiber supplier certificate	0.275 ± 0.015
Bandwidth @ 850nm	Fiber supplier certificate	≥ 200 Mhz/km
Bandwidth @ 1300nm	Fiber supplier certificate	≥ 600 Mhz/km

Environmental

Relative Humidity	5 to 95 %
Operating temperature	-10°C to +70°C
Storage temperature	-10°C to +70°C
Installation temperature	-10°C to +70°C

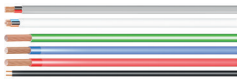
SINGLE FIBER COMPLYING WITH ITU-T G.655
NON-ZERO DISPERSION SHIFTED FIBERS

FIBER ATTRIBUTES		
Attribute	Details	Values
Mode field diameter	Wavelength	1550nm
	Range of nominal values	8.0 ~ 11.0 µm
	Tolerance	± 0.7 µm
Cladding diameter	Nominal	125.0 µm
	Tolerance	± 1 µm
Core concentricity error	Maximum	0.8 µm
Cladding noncircularity	Maximum	2.0 %
Cut-off wavelength	Maximum	1450 nm
Chromatic dispersion coefficient	Minimum value of D_{min}	2.0 ps/nm.km
Wavelength range:1530-1565nm	Maximum value of D_{max}	6.0 ps/nm.km
Chromatic dispersion coefficient	Minimum value of D_{min}	4.5 ps/nm.km
Wavelength range:1565-1625nm	Maximum value of D_{max}	11.2 ps/nm.km
Attenuation coefficient	Maximum at 1550 nm	≤ 0.25 dB/km
	Maximum at 1625 nm	≤ 0.30 dB/km
PMD Co-efficient	Maxmimum PMD	≤ 0.20 ps/√km

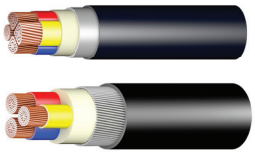
OUR PRODUCTS

Power Cable

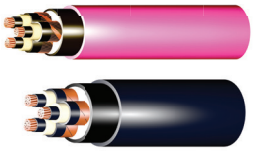
Wires



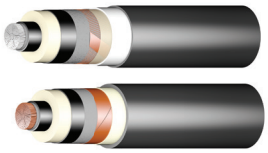
Low Voltage
Lead Sheathed



Medium Voltage
Cables



High Voltage Cables



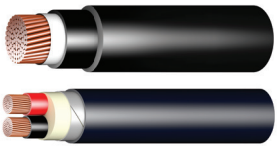
Overhead Lines Conductors

Overhead Lines

Gap Conductor

Fire Retardant Cables

Fire Survival Cable
(fire resistant,
retardant and low
smoke Halogen Free
Cables)



Control Cables

Control Cables

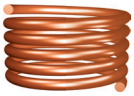
Communication Cables

Telephone Cables

Fiber Optic
Cables

Copper & Aluminum Rods

High Quality
Copper Rods



High Quality
Aluminum Rods

Polymers

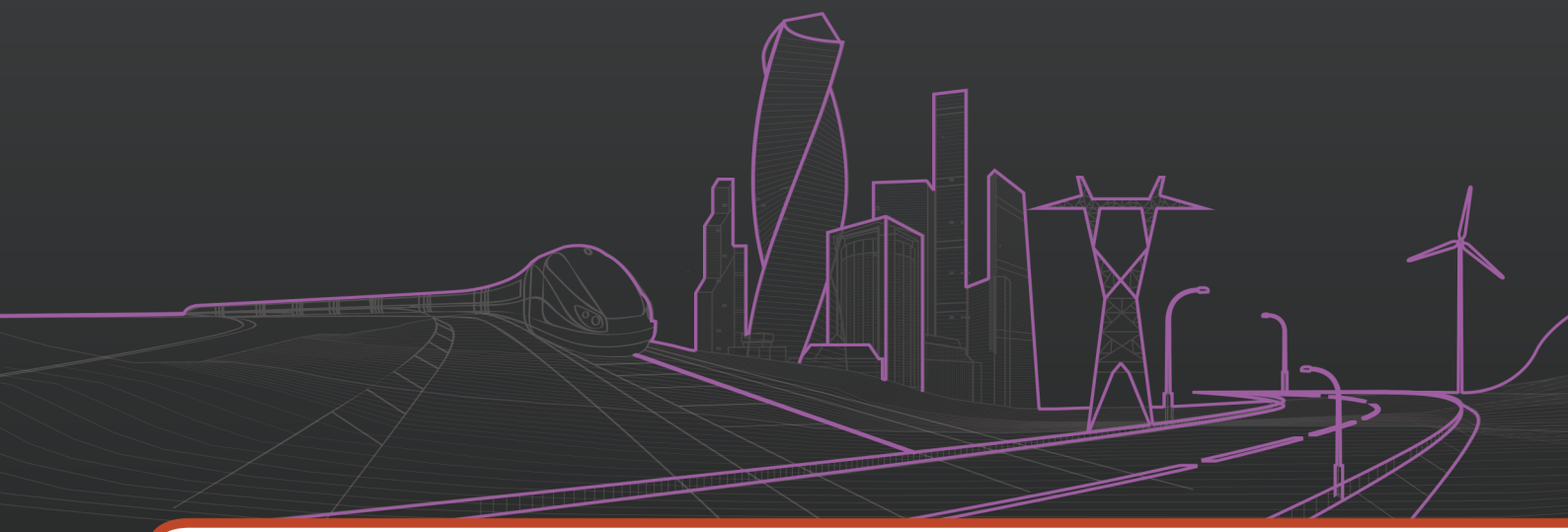
PVC Compounds

LV XLPE Compounds

Wooden & Steel Drums

Wooden & Steel Drums

RIYADH CABLES GROUP



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