INDOOR/OUTDOOR CENTRAL TUBE OPTICAL CABLE - OPTIC-LAN

Construction

- RoHS Compliant
- Dielectric
- Loose Tube

Description

Optical cable constituted by a single central tube with 12 optical fibers maximum capacity.

Installation Environment

Instalation Environment	Outdoor (PE)
	Indoor/Outdoor (OFNG and LSZH)
Operation Environment	Underground Duct
	Conduits and underground passage boxes

Standard

- ITU-T G-651 - Characteristics of a 50/125 µm multimode graded index optical fibre cable for the optical access network;
- ITU-T G-652 - Characteristics of a single-mode optical fibre and cable;
- ITU-T G-657 - Characteristics of a bending-loss insensitive single-mode optical fibre and cable for the access network.

Optical Fiber

SM (Singlemode), BLI (Bending Loss Insensitive), MM (Multimode) OM1, OM2, OM3 and OM4.

Optical Characteristics

Fiber	Characteristics
Single mode	According to technical specification 2000 (Annex A)
Multi mode (OM1, OM2, OM3 and OM4)	According to technical specification 1999 (Annex B)

Fiber Coating

Optical fiber with an acrylate coating.

Fiber Identification

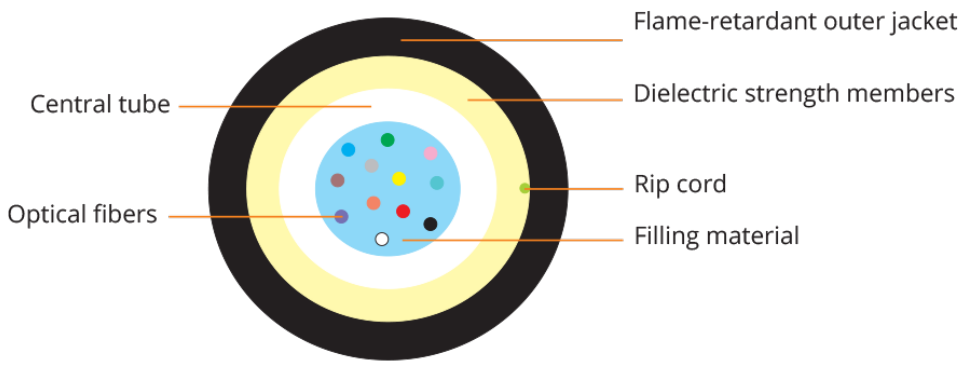
Fiber	Color
01	Blue
02	Orange
03	Green
04	Brown
05	Slate
06	White
07	Red
08	Black
09	Yellow
10	Violet
11	Pink
12	Acqua

Buffer Tube	The loose tubes are filled with a repellent compound that prevents the entrance and migration of humidity. These tubes must protect the fibers from mechanic efforts.
Strength member	Dielectric fibers
Rip Cord	One rip cord shall be included under the jackets.
Outer Jacket	Black thermoplastic material,resistantto UVraysand weathering.

Cable Flammability Rating

Cable Protection Grade	Marking
Not Flame Retardant	NR
Flame Retardant	RC
Optical Fiber Nonconductive General-Purpose (OFNG)	COG
Optical Cable with Low Smoke Zero Halogen Jacket (LSZH-3)	LSZH

Cross Section



OPTIC-LAN 12 FIBERS

Physical Characteristics

Test	Requirement	Unity	Singlemode Fibers	Multimode Fibers
Mechanical	Deformation caused by traction	Load: 1 x Weight of the cable (N)	Maximum: 0.2% Pulled 0.05% At rest	
	Compression	Minimum 100 N/cm	≤ 0.1 dB	≤ 0.2 dB
	Alternated Flexion	50 cycles	≤ 0.1 dB	≤ 0.2 dB
	Torsion	10 cycles	≤ 0.1 dB	≤ 0.2 dB
	Bending	25 cycles x 2 kgf	≤ 0.1 dB	≤ 0.2 dB
	Impact	20 cyclesx 1,5 kgf	Must not present fiber rupture	
Environmental	Thermal cycle	-20 °C to +85 °C	≤ 0.1 dB/km	≤ 0.2 dB/km
	Water penetration	Water column 1 m x 1 h	Must not leak	

Dimension

CHARACTERISTIC	UNIT	TYPICAL VALUE
Optical Fiber Count	Fibers	2 to 12
Maximum Outer diameter	mm	5.7
Nominal Weight	kg/km	37

Mechanical and Environmental Characteristics

Radio Mínimo de Curvatura Durante la Instalación	mm	124
Radio Mínimo de Curvatura Después de Instalado	mm	62
Temperatura durante la operación	°C	-20 a +65
Carga durante la Instalación (máx.)	kgf	60

Marking

"FURUKAWA OPTIC-LAN x w**F** z k MONTH/YEAR **LOTE** nL (**)"
Where:
X = Type of optical fiber
SM For singlemode fibers
BLI For bending loss insensitive fibers
MM For multimode fibers
W = Fiber count
Z = Denomination for special fiber
G-652D For SM ITU-T G.652.D fibers
G-657A-1 For SM BLI G.657.A1 fibers
(62.5) For Multimode 62.5µm
(50) For Mutimode 50µm
(50) OM3 For Multimode 50µm OM3 EIA/TIA 492AAAC fibers
(50) OM4 For Multimode 50µm OM4 EIA/TIA 492AAAD fibers
K = Cable protection grade
Cable with normal polyethylene jacket - No marking
Cable with flame retardant jacket - **RC**
OFNG Cable - **COG**
LSZH Cable - **LSZH**
MONTH/YEAR = Fabrication Date (MM/YYYY)
nL = Batch number
(**) = Length marking (xxxx m)

Package Type

Wooden reel

Standard Length	2100m Tolerance ±5%.

Part Numbers