ARMORED FIBER OPTIC CABLE

IBEX- 12/24/48/72/96/144 G652AD-D

GENERAL SPECIFICATION SHEET

Optical Fiber Cable – Armored Duct Type (G.652.D)
Applicable for 48 / 72 / 96 / 144 Core

Overview

This document provides a generalized technical specification for armored duct optical fiber cables available in 48, 72, 96, and 144 core configurations. These cables are suitable for long-haul, backbone, and high-reliability applications.

Cable Structure

- Optical Fibers: Single Mode (ITU-T G.652.D)
- Loose Tubes: PBT material, filled with thixotropic gel
- Central Strength Member: FRP rod
- Water Blocking Elements: Water-swellable yarn + tape
- Armoring: Corrugated Steel Tape (CST), copolymer coated
- Outer Sheath: High Density Polyethylene (HDPE), UV-resistant

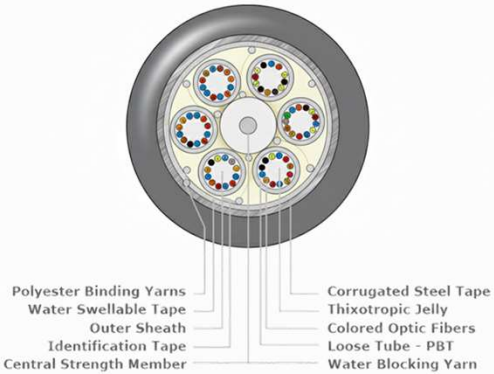
Core Configuration & Dimensions

48 Core
Tubes: 4 tubes × 12 fibers
OD: 12.0 – 12.5 mm
Weight: 150 – 170 kg/km
Drum Length: 2–4 km typical

72 Core
Tubes: 6 tubes × 12 fibers
OD: 13.0 – 13.8 mm
Weight: 170 – 200 kg/km
Drum Length: 2–4 km typical

96 Core
Tubes: 8 tubes × 12 fibers
OD: 14.0 – 15.0 mm
Weight: 200 – 230 kg/km
Drum Length: 2–4 km typical

144 Core
Tubes: 12 tubes × 12 fibers
OD: 15.0 – 16.0 mm
Weight: 230 – 270 kg/km
Drum Length: 2–4 km typical



Optical Performance

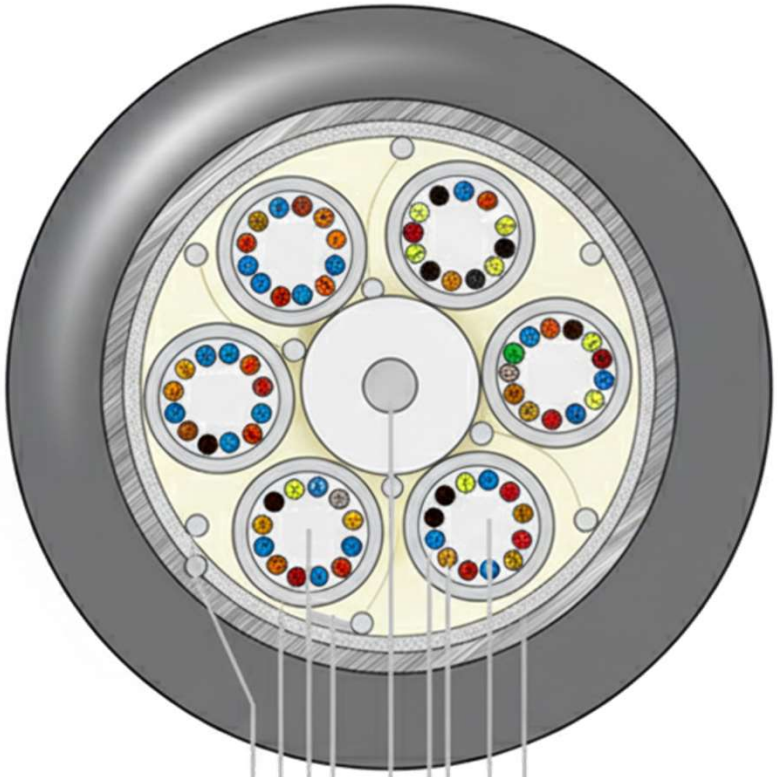
- Attenuation: ≤ 0.35 dB/km @ 1310 nm ; ≤ 0.21 dB/km @ 1550 nm
- Chromatic Dispersion: ≤ 3.5 ps/(nm·km) @1310 nm ; ≤ 18 ps/(nm·km) @1550 nm
- PMD: ≤ 0.2 ps/√km (Uncabled Fiber)
- Cable Cut-off Wavelength: ≤ 1260 nm

Mechanical & Environmental Performance

- Tensile Strength: 2,500 – 3,000 N
- Crush Resistance: ≥ 2,200 N / 10 cm
- Minimum Bend Radius: 10 × OD (without load), 20 × OD (with load)
- Impact Resistance: 2 kg weight from 1 m
- Temperature Range: –10°C to +70°C
- Water Penetration: No water ingress for 24 hours

Cable Printing Format

MUFADDAL ENGINEERING / IBEX – SM ARMORED DUCT OFC – CORE COUNT – YoM – LM



Polyester Binding Yarns
Water Swellable Tape
Outer Sheath
Identification Tape
Central Strength Member

Corrugated Steel Tape
Thixotropic Jelly
Colored Optic Fibers
Loose Tube - PBT
Water Blocking Yarn

GENERAL NOTES

ARMORED CABLE BUILT STRUCTURE DETAILS

MODIFICATION

	DATE

MUFADDAL ENGINEERING & TRADING

Project Name :

FOC STRUCTURE

Drawing Title :

LAYER DETAILS