FIBER OPTIC CABLE SPECIFICATION SHEET

Stranded Loose Tube Armored Cable (GYTA53)

Model: GYTA53 / GYTZA53

Product Description

The structure of GYTA53 optical cable is formed by encasing $250 ext{ }\mu ext{m}$ optical fibers into loose tubes made of high-modulus material, filled with a waterproof compound. The center of the cable core is a metallic central strength member; for certain fiber counts, a layer of Polyethylene (PE) is extruded over the metallic strength member. Loose tubes and filler rods are stranded around the central strength member to form a compact, circular cable core. Interstices within the core are filled with water-blocking compound. An Aluminum Polyethylene Laminate (APL) tape is longitudinally applied before extruding a PE inner sheath. Finally, double-sided coated corrugated steel tape (PSP) is longitudinally applied and finished with a Polyethylene (PE) outer sheath.

Cable Cross-Section Structure

Structural Components:

- PE Outer Sheath
- Coated Steel Tape (PSP)
- PE Inner Sheath
- Coated Aluminum Tape (APL)
- Core Filling Compound
- Central Strength Member
- Optical Fiber Core
- Fiber Filling Compound
- Loose Tube

Product Features

- **Excellent Mechanical & Temperature Performance:** Superior physical strength and reliable stability across wide temperature operating ranges.
- **Hydrolysis-Resistant Loose Tube:** High-strength loose tube material exhibits excellent resistance to hydrolysis and water degradation.
- **Special Tube Jelly Protection:** Loose tubes are filled with special compound to provide critical, long-term protection for optical fibers.
- **Anti-Shrinkage Cable Structure:** Specially designed compact cable structure effectively prevents loose tube retraction.
- **Good Crush Resistance & Flexibility:** Double-armored construction provides outstanding crush load resistance while maintaining installation flexibility.
- **Customizable Flame-Retardant Version:** Flame-retardant GYTZA53 product version is available upon custom request.

Technical Parameters

Cable Model	Fiber Count	Loose Tube Count	Filler Rod Count	Ref. Cable Weight (kg/km)	Allowable Tensile Force (N)		Allowable Crush Resistance (N/ 100mm)		Bending Radius (mm)	
					Long Term	Short Term	Long Term	Short Term	Static	Dynamic
GYTA53-4Xn	4	1	4	175	1000	3000	1000	3000	15D	30D
GYTA53-12Xn	12	2	3	175	1000	3000	1000	3000	15D	30D
GYTA53-24Xn	24	4	1	175	1000	3000	1000	3000	15D	30D
GYTA53-48Xn	48	5	0	175	1000	3000	1000	3000	15D	30D
GYTA53-96Xn	96	9	1	230	1000	3000	1000	3000	15D	30D
GYTA53-144Xn	144	18	0	330	1000	3000	1000	3000	15D	30D

** Note: The above data is for reference only. Storage & Operating Temperature: -40°C to +70°C. ("D" represents cable outer diameter)*

Product Standards

GYTA53 Optical Cable Standards: Complies with **YD/T 901** and **IEC 60794-1** standards.