

# Stranded Loose Tube Non-metallic Strength Member Armored Cable (GYFTA53)

(GYFTA53) 松套层绞式非金属加强芯铠装光缆

## Description 产品描述

The fibres, 250µm, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. A Fibre Reinforced Plastic (FRP) locates in the center of core as a non-metallic strength member. The tubes (and fillers) are stranded around the strength member into a compact and circular core. An aluminum Polyethylene laminate (APL) is applied around the cable core. Then the cable core is covered with a thin polyethylene (PE) inner sheath, which is filled with jell to protect it from water ingress. After corrugated steel tape armor is applied, the cable is completed with a PE outer sheath.

GYFTA53光缆的结构是将250µm光纤套入高模量材料制成的松套管中,松套管内填充防水化合物。缆芯的中心是一根非金属加强芯(FRP),对于某些芯数的光缆来说,非金属加强芯外还需挤上一层聚乙烯(PE)。松套管(和填充绳)围绕中心加强芯绞合成紧凑和圆形的缆芯,缆芯内的缝隙充以阻水填充物。涂塑铝带(APL)纵包后挤上一层聚乙烯内护套,双面涂塑钢带(PSP)纵包后挤制聚乙烯外护套成缆。

## Characteristics 产品特点

- Good mechanical and temperature performance  
具有很好的机械性能和温度特性
- High strength loose tube that is hydrolysis resistant  
松套管材料本身具有良好的耐水解性能和较高的强度
- Special tube filling compound ensure a critical protection of fibre  
管内充以特种油膏,对光纤进行了关键性保护
- Crush resistance and flexibility  
良好的抗压性和柔软性
- The following measures are taken to ensure the cable watertight:  
采用下列措施来确保光缆的防水性能:

-Single Fibre Reinforced Plastic as the central strength member  
-单根非金属中心加强芯

-Loose tube filling compound  
-松套管内填充特种防水化合物  
-100% cable core filling  
-完全缆芯填充

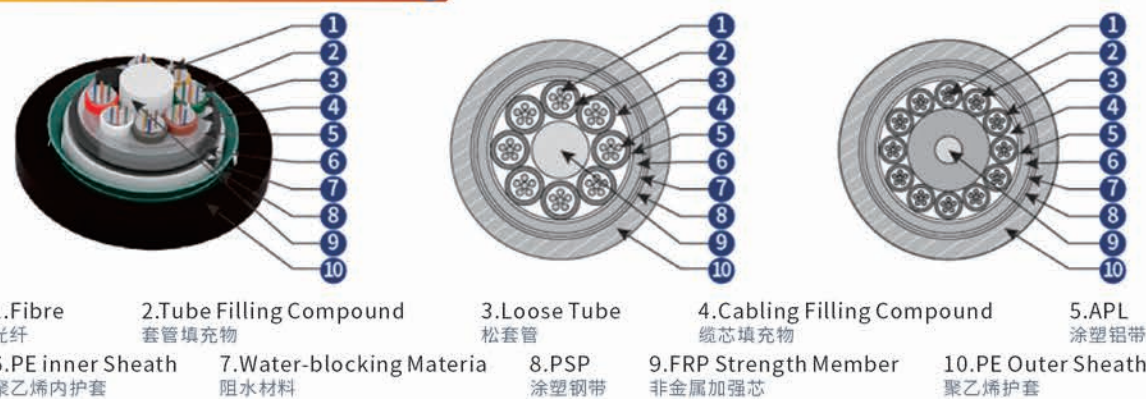
-APL moisture barrier  
-涂塑铝带(APL)防潮层

-PSP enhancing moisture-proof  
-双面涂塑钢带(PSP)提高光缆的抗透潮能力  
-Water-blocking material  
-良好的阻水材料防止光缆纵向渗水

## Standards 产品标准

GYFTA53 cable complies with Standard YD/T 901 as well as IEC 60794-1.  
GYFTA53光缆符合YD/T 901和IEC 60794-1标准。

## Structure Drawing 结构图



## Specifications 参数

### Technical Parameters 结构参数

Cable Type 光缆型号 (Increased by 2 fibres) (以2纤递增)	Fibre Count 光纤数	Tubes 套管数	Fillers 填充绳数	Cable Weight (Ref) 参考光缆重量 (kg/km)	Tensile Strength 允许拉伸力 Long/Short term 长期/短期 (N)	Crush Resistance 允许压扁力 Long/Short term 长期/短期 (N/100mm)	Bending Radius 弯曲半径 Dynamic/Static 动态/静态 (mm)
GYFTA53-2~6Xn	2~6	1	7	228	1000/3000	1000/3000	12.5D/25D
GYFTA53-8~12Xn	8~12	2	6	228			
GYFTA53-14~18Xn	14~18	3	5	82			
GYFTA53-20~24Xn	20~24	4	4	228			
GYFTA53-26~30Xn	26~30	5	3	228			
GYFTA53-32~36Xn	32~36	6	2	228			
GYFTA53-38~42Xn	38~42	7	1	228			
GYFTA53-44~48Xn	44~48	8	0	228			
GYFTA53-50~60Xn	50~60	9	3	240			
GYFTA53-62~72Xn	62~72	10	2	240			
GYFTA53-74~84Xn	74~84	11	1	240			
GYFTA53-86~96Xn	86~96	12	0	240			
GYFTA53-98~108Xn	98~108	13	1	276			
GYFTA53-110~120Xn	110~120	14	0	276			
GYFTA53-122~132Xn	122~132	15	1	326			
GYFTA53-134~144Xn	134~144	16	0	326			

Storage/Operating Temperature: -40°C~+70°C  
储存/使用温度: -40°C~+70°C

### Optical Characteristics 光学特性

Fiber Type 光纤类型	Attenuation 衰减 (+20°C)				Bandwidth 带宽		Numerical Aperture 数值孔径	Cable Cut-off Wavelength λ <sub>c</sub> 光缆截止波长
	@850nm	@1300nm	@1310nm	@1550nm	@850nm	@1300nm		
Unit	dB/km	dB/km	dB/km	dB/km	MHZ.km	MHZ.km	NA	nm
G.652			≤0.36	≤0.22	—	—	—	≤1260
G.655			≤0.40	≤0.23	—	—	—	≤1450
50/125µm	≤3.3	≤1.2	—	—	≥500	≥500	0.200±0.015	—
62.5/125µm	≤3.5	≤1.2	—	—	≥200	≥500	0.275±0.015	—

Note:  
注意:

a. Suffix Xn denotes fibre type  
型号的后缀Xn表示选用的光纤类型

b. The colour arrangements of fibre and tube are specified in the colour identification table  
套管和光纤的颜色排列见色谱表

c. The cable shouldn't store in outdoor environment more than 6 months in order to keep the cable reel good state  
光缆在露天环境中不要超过6个月,否则盘具可能会受损。

Application: Duct/Aerial/Direct buried  
适用: 管道、架空、直埋