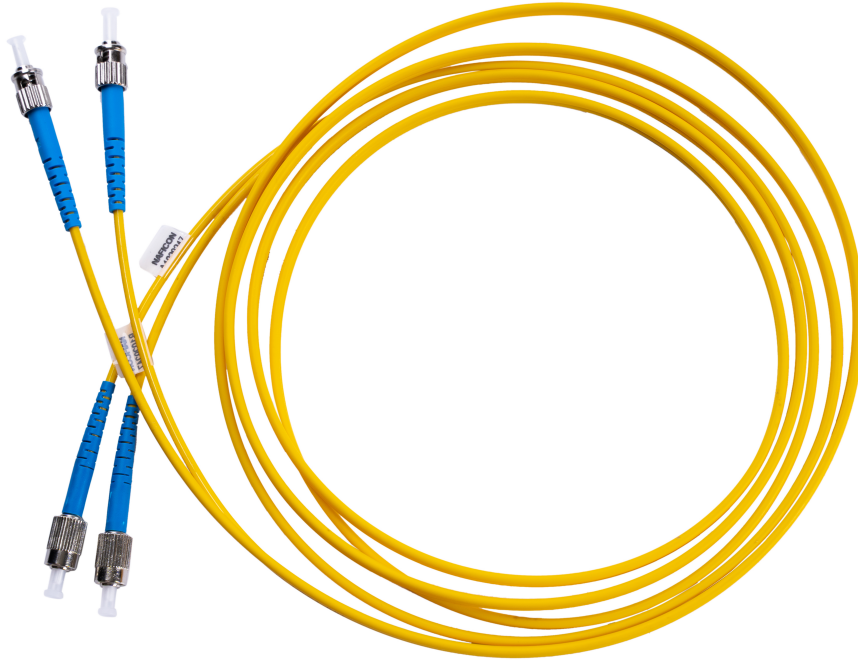


## Armored Fiber Optic Patch Chords- 3mm Duplex



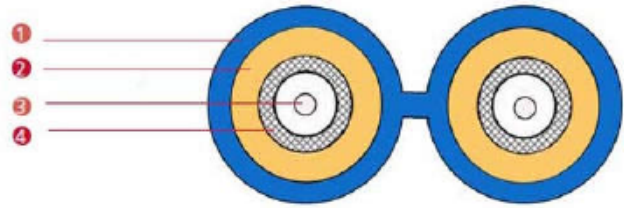
### Features

- Single Mode- G.652D or G.657A1 fiber
- Connectors: SC-UPC, LC-UPC, With Duplex Clips

### A. Product Specifications

Parameter	LC-UPC	SC, FC or ST in UPC finish	LC-APC	SC-APC and FC-APC
Insertion Loss (Typ)	0.10 dB	0.10 dB	0.15 dB	0.15 dB
Insertion Loss (Max)	0.30 dB	0.30 dB	0.30 dB	0.30 dB
Return Loss (Typ)	58dB	58dB	65dB	65dB
Return Loss (Min)	55dB	55dB	60dB	60dB
Operating Wavelength	1490nm, 1310nm and 1550nm			
Fiber Size	9/125um, Single Mode, ITU G.652D/ G.657.A1			
Cable Type	Indoor, Helical Steel Armored, LSZH Jacket, 2mm or 3mm OD			
Cable Colour	Yellow			
Operating Temperature	-20 to +70 <sup>0</sup> C			
Storage Temperatue	-25 to +70 <sup>0</sup> C			
Complying Stanadards	IEC 61753-021-2 Fibre optic interconnecting devices and passive components performance standard & Telcordia GR-326			
Mating Durability	500 Cycles minimum (as per IEC 61300-2-2)			

## B: Cable Construction: Duplex Zip 3mm



- 1 3mm Outer sheath LSZH
- 2 Aramid Yarns
- 3 LSZH buffered optical fibre
- 4 Steel Armour

## C. Optical Fiber Specification

### B.1. Single mode optical fibres; dispersion-unshifted fibres

The following specifications apply to the optical performance of the single mode fibers as supplied in a cable.

General description		Dispersion-unshifted fibre Matched cladding			
Performance		G652D		G657A1	
Characteristic	Units	Value		Value	
MFD, 1310nm	µm	9.2 ± 0.3		9.0 ± 0.4	
MFD, 1550nm	µm	10.4 ± 0.6		10.2 ± 0.6	
Core non-circularity	%	≤ 6.0		≤ 6.0	
Core/cladding concentricity error	µm	< 0.4		< 0.4	
Cladding diameter	µm	125.0± 0.3		125.0± 0.3	
Cladding non-circularity	%	≤ 0.5		≤ 0.5	
Coating diameter, uncoloured cloured	µm	242 ± 5 250± 15		242 ± 5 250± 15	
Coating/cladding concentricity error	µm	≤ 12		≤ 12	
Temperature sensitivity –60°C ≤ temp. ≤ +85°C	dB/km	≤ 0.05		≤ 0.05	
Point Discontinuity	dB	≤ 0.05		≤ 0.05	
Bending sensitivity 100 turns Ø50 mm; 1550 nm 100 turns Ø50 mm; 1625 nm 15 turns Ø15 mm; 1550 nm 15 turns Ø15 mm; 1625 nm 1 turn Ø10 mm; 1550 nm 1 turn Ø10 mm; 1625 nm	dB	≤ 0.05 ≤ 0.05		≤ 0.02 ≤ 0.03 ≤ 0.1 ≤ 0.3 ≤ 0.75 ≤ 1.5	
Proof stress level	GPa	≥ 0.7		≥ 0.7	
Fibre cut-off wavelength (λ <sub>c</sub> )	nm	≤ 1250		≤ 1250	
Chromatic dispersion 1285-1330nm 1550nm 1625nm	ps/nm.k m	≤ 3.0 ≤ 17.0 ≤ 21.0		≤ 3.2 ≤ 17.0 ≤ 21.0	
PMD (fibre)	ps/√km	≤ 0.1		≤ 0.1	
IOR (indication)	-	1.465		1.465	
Attenuation @ 1383 nm (α <sub>1383</sub> ) a	dB/km	≤ 0.35		≤ 0.35	

## D. Cable Characteristics

Characteristic	unit	ZIP 3.0
C.1. Buffer diameter	mm	0.9
C.2. Aramide surface, approx.	mm <sup>2</sup>	1.0
C.3. Outer sheath, inner diameter	mm	2.0
C.4. Sheath thickness tolerance	mm	± 0.1
C.5. Outer sheath, Outer diameter ± 0.3 Width ± 0.5	mm	3.0 5.9
C.6. Mass , approx.	kg/km	11.5
C.7. Fire load , approx	MJ/Km	126
C.8. Max tensile load	N	800
C.9. Max fibre strain	%	0.33
C.10 Minimum Bend Radius		
C.10.1. static	mm	40
C.10.2. dynamic		30
C.11. Crush resistance	N/dm	1000
C.12. Impact resistance	J	1
C.13. Torsion resistance	°/m	+/- 360
C.14. Operating temperature	°C	-20/70
C.15. Installation temperature	°C	-5/45
C.16. Storage temperature	°C	-25/70
C.17. sheath stripping length, in one operation	m	1

### C.20. Optical characteristics of single mode fibre in cable

OTDR-attenuation of full production lengths at delivery (20°C) [dB/km]			
at 1310nm/1550nm/1625nm			
Fibre quality	G652D		G657A1
Max [dB/km]	0.4/0.3/0.4		0.4/0.3/0.4
Point Discontinuity	<0.10 dB		

## How to order:

PHL- **XXX**-**YYY**-SM-A32- **ZZ**m

**XXX: End-1, YYY: End-2**

- : SCD: SC/UPC with Duplex Clips
- : SCAD: SC/APC with Dx Clips
- : SC: SC/UPC without Dx Clips
- : SCA: SC/APC without Dx Clips

- : LCD: LC/UPC with Dx Clips
- : LCAD: LC/APC with Dx Clips
- : FC: FC/UPC
- : FCA: FC/APC

**ZZ:** Stands for product length in meters  
Example: 1m, 1.5m, 2m, 3m, etc

### Naficon Liitin Oy

Lahdentie 7 D, 21660 NAUVO  
Finland  
Tel: +358 208 351 662  
[www.naficon.fi](http://www.naficon.fi)

### Naficon Fiber Optic Manufacturing LLC

Shed-2, Nad Al Hammar  
Dubai, UAE  
Tel: +971 4 2514550  
[sales@naficon.ae](mailto:sales@naficon.ae)  
[www.naficon.ae](http://www.naficon.ae)