# Prysmian Group

## TDS6597/R5\_RO FPTM/K1M



# **INDOOR OPTICAL CABLE**

**Cable Design** 

IEC/EN 60794-2-50



- Fibers: G.657A1 or G.657A2
- Buffers: 0.9 mm easy stripping buffers (ESFU).
- Peripheral Strength Member: aramid yarns.
- Outer Sheath: Flame retardant LSOH.

-2F version illustrated not to scale -

This dielectric optical cable is designed for indoor installation technique.

Technical data						
No. of Fibres		1	:	2	4	
Buffer diameter - ø	mm	0.900				
Sheath thickness	mm	0.70				
Cable diameter – ø	mm	$3.8^{\pm 0.1}$		4.4 <sup>±0.2</sup>		
Cable weight, max.	Kg/Km	15		20		
Min. bending radius	mm	Under Tension: 15xC	able-ø Without Te		Tension: 10xCable-ø	
Temperature range	°C	Transport :	Instal	lation:	Operation:	
		-10 -> +60	-10 -:	> +40	-10 -> +60	

#### Main characteristics Test Standard Value **Requirement\* Tensile Strength** $\Delta I/I$ fibre $\leq 0.20\%$ , IEC 60794-1-2-E1 90 N, 5 min. $\Delta \alpha \leq$ 0.05 dB under test, reversible (static) **Tensile Strength** $\Delta I/I$ fibre $\leq 0.60\%$ , IEC 60794-1-2-E1 270N, 5 min. (dynamic) $\Delta \alpha \leq 0.10 \text{ dB}$ under test, reversible $\Delta \alpha \leq 0.10$ dB under test, reversible, IEC 60794-1-2-E3 150 N/100mm, max. 15 min Crush no damage Impact IEC 60794-1-2-E4 5 J, 3 impacts, R=300 mm $\Delta\alpha \leq$ 0.10 dB after test, no damage No break of fibres or tensile Repeated Bending R=15xOD, 50N, 100 cycles IEC 60794-1-2-E6 performance elements $\Delta \alpha \leq$ 0.10 dB under test, reversible, Torsion IEC 60794-1-2-E7 ± 180°, 1 m, 20N, 20 cycles no damage Bend $\Delta \alpha \leq$ 0.05 dB under test, reversible, IEC 60794-1-2-E11A Test diameter=10xOD, 5 cycles (at low temperature) no damage -10 -> +60 °C, 2 cycles, IEC 60794-1-2-F1 $\Delta \alpha \leq$ 0.05 dB/Km, reversible **Temperature Cycling** time of cycle = 18hTest temperature: 23 °C±3 °C, Kink IEC 60794-1-2-E10 No kink after test Test diameter=5xOD Abrasion Resistance of After the test the marking shall be IEC 60794-1-2-E2B-1 3 cycles, load = 450 gCable Marking leaible IEC 60332-1 Flame Propagation \_ As in IEC 60332-1 Halogen content IEC 60754-1 Halogen content <0.5% Corrosivity of Smoke IEC 60754-1 pH value $\geq 4.3$ Gases Conductivity of Smoke IEC 60754-1 Conductivity > 10 $\mu$ S/mm Gases

\* values for single-mode fibres, all optical measurements performed at @1550 nm

# **Premises**





### **Optical Characteristics**

See the attached cabled optical fibre G.657A1 or G.657A2 data sheet.

#### Identification

#### Fibre & buffers Colors

No.	1	2	3	4
Colour	red	blue	green	yellow

#### **Sheath Color:**

The outer sheath color is white.

#### **Sheath Marking:**

The outer sheath is marked in 1 meter intervals by ink jet method as follows:

wwyy	PRYSMIAN (S)	VERTICASA DROP CABLE	nFO ft K1M	LSOH	ZZZZ	

where: wwyy = manufacturing year; n = number of optical fibre; ft = fibre type; zzzz = sequential length mark



#### Packing:

Wooden drums with protection.

#### **Delivery Lengths:** 2100 ± 100 m

Other lengths available upon agreement, up to a maximum of 10% of the total number of cable lengths could be shorter than nominal values

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**Premises** 

All sizes and values without tolerances are reference values. Specifications are for product as supplied by PrysmianGroup: any modification or alteration afterwards of product may give different result.