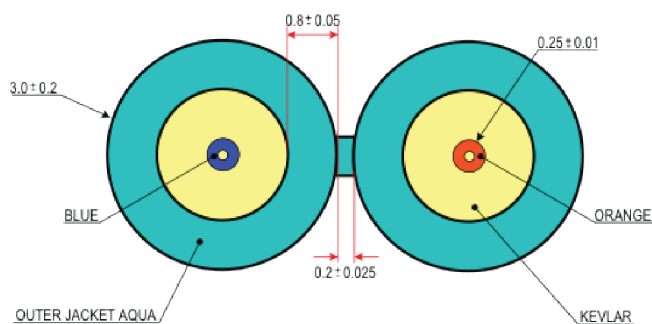


# TWF2-1000

Certified Premium 2 Fiber Cable w/TotalWire Technology – 1000' Reel

(Type: OM3, OFNR, CSA FT4 / OFNP, CSA FT6)



Duplex Plenum  
Typical Cross Sections

The **TotalWire TWF2-1000** advanced optical glass fibers are much stronger, safer, and faster (**SSF™ Technology\***) terminating than typical fibers. This duplex style cable provides ultimate durability and bend with ease of termination. TWF2-1000 fibers are always protected at the glass level as a result of their integral polymeric coating, increasing both bend and tensile strength.

*\*Note: PureLink's Advanced SSF™ Technology provides superior strength and durability for simplified and safe field termination.*

## Key Features

- High mechanical strength and superior fatigue/durability
- Integral coating eliminates stripping and provides glass protection
- 10,000x the bend of standard fiber
- Glass fiber remains protected at all times
- Ultra-low Attenuation loss on tight bend radius
- Simplified termination process
- Exclusive 250um Soft Peel jacket identifier

Part Number	Part Description	Fiber Count	Nominal Diameter	Cable Weight	Total Weight
TWF2-1000	Duplex Plenum	2 Fiber/s	3.0mm x 2	5.9 kg 13 lbs	6.8 kg 15 lbs

TWF2 conforms to the requirement of IEC 60793 A1a, ISO/IEC 11801 & ITU-T G.651.1. 850nm Laser-Optimized 50µm-core multimode fiber 10 Gb/s & above applications

## Fiber Construction

Number of Fibers; Duplex = 2  
50/125 Multimode OM3  
250um "Soft Peel" coating (1 = Blue, 2 = Orange)  
Color Coding per TIA / EIA 568

## Jacket Construction

Plenum Rated PVC + UV  
3.0mm x 2 unit diameter w/strip peel  
Aqua jacket = OM3, Sequential footage markings  
Kevlar (Plenum + water blocking yarns)

## Physical Data

Storage Temperature Range	-40°C to +85°C
Operating Temperature Range	-20°C to +75°C
Max Tensile Load for Installation	1000(225) N (lbf)
Max Tensile Long Load term	500(112) N (lbf)
Min. Bend Radius, Unloaded	10 x OD (10 x 3mm)
Min. Bend Radius, Loaded	20 x OD (20 x 3.0mm)
Cable Outside Diameter, Nominal	3.0mm x2 (6.2mm)
Cable Package	1000ft Spool or Cut to customer request, spooled
Rating	OFNR/FT4/Riser or OFNP/FT6/Plenum
Crush Resistance(TIA/EIA 455-41A)	100 kgf/mm
Impact Resistance(TIA/EIA 455-25B)	1500 Impact cycles
Flexing @ 90 degree(TIA/EIA 455-104A)	2000 flexing cycles

## Environmental Characteristics

Temperature Dependence at 850 nm and 1300 nm  $\leq 0.5$  (dB/km)  
 Induced Attenuation -40°C to +85°C  
 Water soaks Dependence at 850nm and 1300 nm  $\leq 0.5$  (dB/km)  
 Induced Attenuation at 23 for 30 days  
 Damp Heat Dependence at 850 nm and 1300 nm  $\leq 0.5$  (dB/km)  
 Induced Attenuation at 85 , 85%R.H., 30 days  
 Dry Heat Dependence at 850 nm and 1300 nm  $\leq 0.5$  (dB/km)  
 Induced Attenuation at 85 , 30 days

## Optical Characteristics

Attenuation Coefficient	850nm	$\leq 3.0$ (dB/km)
	1300nm	$\leq 1.0$ (dB/km)
Numerical Aperture		$0.200 \pm 0.015$
Overfilled Modal Bandwidth	850nm	$\geq 1500$ (MHz · km)
	1300nm	$\geq 500$ (MHz · km)
High Performance EMB	850nm	$\geq 2000$ (MHz · km)

## Backscatter Characteristics

Attenuation Directional Uniformity		$\leq 0.05$ (dB/km)
Attenuation Uniformity		$\leq 0.05$ (dB)
Group Index of Refraction	850nm	1.481
	1300nm	1.476

## Physical Characteristics

Core Diameter	$50.0 \pm 2.5$ ( $\mu\text{m}$ )
Core Non-circularity	$\leq 6$ (%)
Core / Hybrid Cladding Concentricity Error	$\leq 3.0$ ( $\mu\text{m}$ )
Hybrid Cladding Diameter	$125 \pm 0.7$ ( $\mu\text{m}$ )
Hybrid Cladding Non-Circularity Error	$\leq 3.0$ (%)
Soft Peel Jacket Identifier Diameter	$250 \pm 0.7$ ( $\mu\text{m}$ )
Coating Strip Force	100 (g)
Fiber Curl	$\leq 2$ (m)
Dynamic Fatigue Constant (Nd)	$>30$
Proof Test	100 (kpsi)
Bend Induced Attenuation at 1300 nm (100 turns around a mandrel of 75 mm diameter)	$\leq 1.0$ (dB)
Dynamic fatigue 23C, 41%RH	$>30$ (nd)
Length	1,000 ft.   305 m

## Compliance

ETL Listed OFNR - CSA FT4 and ONFP - CSA FT6  
 RoHS Compliant Directive 2011/65/EU

\*Ensured via minEMBC.per TIA/EIA 455-220A and IEC 60793-1-49, for high performance laser based systems.

