



**Product:** [GSWHF60](#)

Outdoor OFC MLT: GLASS YARNS + ALPOL-PE + SWA + PE with 6 Tubes of Ø1.9mm 60f SM OS2 G.657.A2.

## Product Description

Outdoor dry core optical fiber Multi Loose Tube cable with glass yarns as strength member, moisture barrier (laminated layer of aluminum with high density polyethylene), Steel Wire Armouring (Full Rodent Protected) armor and polyethylene outer jacket. Product feature: This cable has improved rodent protection by Steel Wire Armouring (Full Rodent Protected). Existing out of 6 tubes with a diameter of 1.9mm with 60 fibers (5t x 12f) SM OS2 G.657.A2.

## Technical Specifications

### Product Overview

Construction Type:	Multi Loose Tube
Environmental Space:	Outdoor
Suitable Applications:	For outdoor use in structured (data) wiring systems such as industrial backbone, campus backbone, building backbone (riser) and/or horizontal cabling. For outdoor use in networks for industrial, telecom, cable TV and/or broadcast. Easy to install in ducts, tunnels and trenches and/or tubes. Suitable for Direct Burial.

### Construction

#### Fiber Cable Construction

Fiber Type	Fiber Grade acc. ITU-T	Fiber Count	Subunit Color
OS2	G.657A2	60	TIA coding (Gxxxxx.T): Blue, Orange, Green, Brown, Gray
Fiber Color Coding:	TIA coding (Gxxxxx.T): Blue, Orange, Green, Brown, Gray, White, Red, Black, Yellow, Violet, Pink, Aqua		
Central Strength Member:	GRP		
Cable Core Water Tight:	Yes		
Cable Core Waterblocking:	Waterblocking Aramid Yarns + Tape		
Bulk Cable Weight:	360 kg/km		

### SubUnit Specifications

Number of Active Subunits:	5
Number of Subunit Positions:	6
Fibers Per Subunit:	12
Subunit Diameter:	1.9 mm
Subunit Waterblocking:	Gel Filled

### Jacket Specifications

Number of Jackets:	Double Jacket
Type of Armor:	Steel Wire

### Inner Jacket

Material:	PE - Polyethylene
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### Outer Jacket Specifications

#### Outer Jacket

Material	Color	Nominal Diameter	Ripcord
PE - Polyethylene	Black	13.8 mm	No

## Optical Characteristics

Max. Attenuation at 1310 nm:	0.40 dB/km
Max. Attenuation at 1550 nm:	0.30 dB/km
Max. Attenuation at 1625 nm:	0.30 dB/km

## Mechanical Characteristics

### Mechanical Tests

Description	Tested Standard	Requirement/Value	According to Family Specification
Cable Min. Bend Radius Installation (Short Term)	IEC 60794-1-21-E6	275 mm	IEC 60794-3-10
Cable Min. Bend Radius Operation (Long Term)	IEC 60794-1-21-E11	275 mm	IEC 60794-3-10
Cable Max. Tensile Strength Installation (Short Term)	IEC 60794-1-21-E1	2700 N (607 lbf)	IEC 60794-3-10
Cable Max. Tensile Strength Operation (Long Term)	IEC 60794-1-21-E1	900 N (202 lbf)	IEC 60794-3-10
Cable Max. Crush Resistance Installation (Short Term)	IEC 60794-1-21-E3	22 kN/m	IEC 60794-3-10
Cable Max. Crush Resistance Operation (Long Term)	IEC 60794-1-21-E3	11 kN/m	IEC 60794-3-10
Cable Impact Resistance	IEC 60794-1-21-E4	10 J, 300 mm Radius, 3 Cycles	IEC 60794-3-10
Cable Torsion Resistance	IEC 60794-1-21-E7	180°, 2 m, 10 cycles	IEC 60794-3-10

## Temperature Range

Operating Temperature Range:	-30 °C to +70 °C
Installation Temperature Range:	-5 °C to +50 °C
Storage Temperature Range:	-30 °C to +70 °C

## Standards

UL Rating/Flame Test:	Non-UL Rated
REACH:	Compliant
ISO/IEC Compliance:	IEC 60794, ISO/IEC 11801-1
EU Directive 2011/65/EU (RoHS 2):	Compliant
UV/ Sunlight Protection:	Yes

## History

Update and Revision:	Revision Number: 0.15 Revision Date: 09-17-2024
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