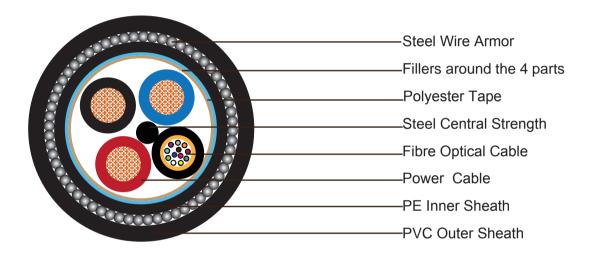
# Composite Cables

# 3x2.5 Power Cable + 12C Fiber Optic Cable SWA LSOH Sheathed Composite Cable

## **Construction:**



#### 3x2.5mm<sup>2</sup> Power Cable

Conductor	7/0.67mm Stranded bare copper wire	
Insulation	XLPE. Thickness is 0.7mm. Outer diameter 3.41mm	

#### 12C Fiber Cable

No of fibers in loose tube	12 fibers	
	outer diameter: 2.2+/-0.2mm (Aramid yarn &PE Sheath would be use over the loose tube)	

#### **Element Assembly**

Central Strength Member	Steel central strength member with PE/PVC coating if necessary	
Fillers	PP fillers will be added around the 4 cable cores.	
Wrapping Tape	Polyester tape is applied over cable core if necessary	
Inner Jacket	PE, LSOH is optional, thickness is 1.0mm	
Armor	Steel wire armour	



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Sheath	PE, LSOH is optional, thickness is 1.8mm, nominal outer diameter 16.2±2.0mm
Sheath Color	Black

## **Optical Characteristics**

Property	50/125 fibers	62.5/125 fibers	
Attenuation @ 850 nm (dB/km)	≤ 3.0	≤ 3.2	
Attenuation @ 1300 nm (dB/km)	≤ 1.0	≤ 1.2	
Added Attenuation with Bending	≤ 0.5 dB (850 and 1300 nm) for 100 turns around a 75 mm mandrel		
Numerical Aperture	0.20 ± 0.02	0.275 ± 0.015	
Bandwidth @ 850 nm	400 MHz*km	160 MHz*km	
Bandwidth @ 1300 nm	800 MHz*km	500 MHz*km	
Core diameter	50 ± 3 μm	62.5 ± 3 μm	
Cladding diameter	125 ± 2 μm		
Core-Cladding offset	≤ 6%		
Cladding non-circularity	≤ 2%		
Core non-circularity	≤ 6%		
Coating diameter	245 ± 10 μm		
Coating / Cladding offset	12 μm		
Proof Test	≥ 0.69 GN/m² (100 kpsi)		

The fibers contain no splices.

## **Mechanical Properties:**

Tensile load:

Operating: 3000N Installation: 5000N

Bending radius:

Operating: 15×OD Installation: 28×OD

**Compressive load:** 

Short term: 5500N Long term: 3500N

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