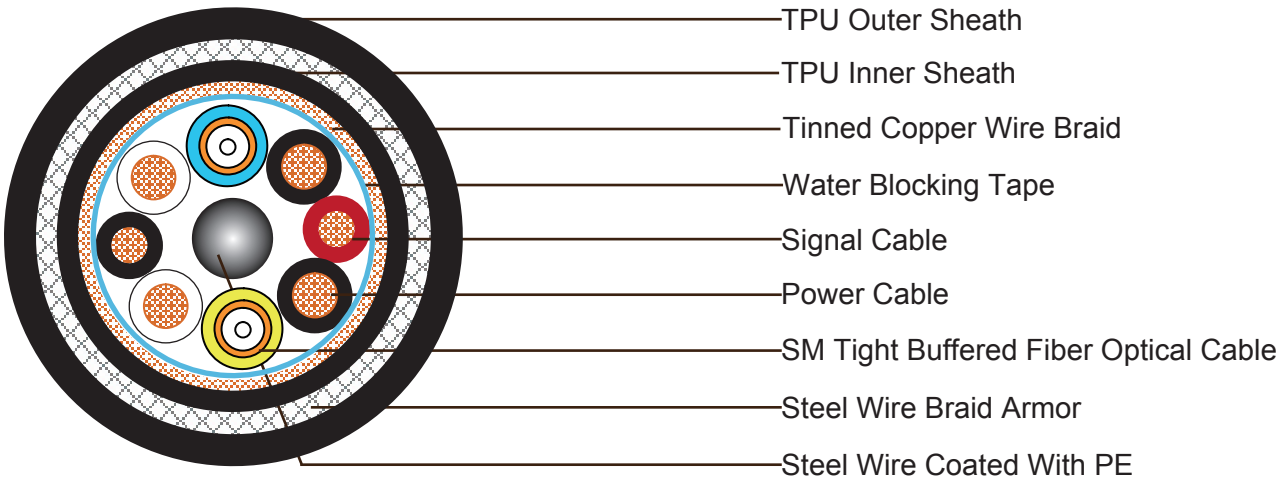
Power Cable + Signal Cable + SM Tight Buffered Fiber Optical Cable SWB Armored TPU Sheathed Composite Cable

Construction:



4x20AWG Power Cable

Conductor	20AWG stranded tinned copper wire
Insulation	XLPE. Nominal outer diameter is 1.5mm
Insulation Color	2xBlack and 2xWhite

2x24AWG Signal Conductor

Conductor	24AWG stranded tinned copper wire
Insulation	XLPE. Nominal outer diameter is 1.1mm
Insulation Color	Red and Black

2Cx9/125um Tight Buffered Fiber Cable

Tight buffered fiber	Single-mode fiber meets the ITU G.652D specification
Strength meber	Aramid yarn

Sheath	PVC, Nominal outer diameter: 1.6mm
Sheath Color	Blue & yellow

Element Assembly

Central Strength Member	1.5mm steel wire coated with PE, OD: 2.1mm
Wrapping Tape	Water blocking tape
Screen	Tinned copper wire braiding, 90% coverage
Inner Jacket	Black TPU
Armor	Steel wire braid, dia. 0.2mm, coverage 80%
Sheath	TPU, nominal outer diameter 12.0mm.
Sheath Color	Black
Cable Weight	250kg/km

Optical Characteristics

Parameter		**Standard Single Mode Fiber per ITU-T G.652D**	**Non-zero Dispersion Shifted fiber per ITU-T G.655**	**Non-zero Dispersion Shifted fiber per ITU-T G.656**	**Units**
Fiber Code		9	8	7	
Attenuation, Loose Tube Cables	@1310nm	≤0.35	N/A	N/A	dB/km
	@1550nm	≤0.22	≤0.22	≤0.22	dB/km
	@1625nm	≤0.25	≤0.26	≤0.26	dB/km
Attenuation, Tight Buffer or Semi-Tight Cables	@1310nm	≤0.38	N/A		dB/km
	@1550nm	≤0.28	N/A		dB/km
Chromatic Dispersion	between 1260 and 1360nm (O Band)	≤3.5	N/A	N/A	ps/(nm*km)
	between 1460 and 1530nm (S Band)	N/A	N/A	2.0-7.0	ps/(nm*km)
	between 1530 and 1565nm (C Band)	≤18	1.0-10.0	7.0-10.0	ps/(nm*km)
	between 1565 and 1625nm (L Band)	≤22	7.0-12.0	10.0-14.0	ps/(nm*km)

Zero Dispersion Wavelength		1310±11	1530-1560	1460-1565	nm
Zero Dispersion Slope		0.093	0.093	0.093	ps/(nm2.km)
Point Discontinuity at 1300nm& 1550nm		0.1	0.1	0.1	dB
Mode Field Diameter	@1300nm	9.3±0.5	N/A	N/A	um
	@1550nm	10.4±0.8	8.5±0.6	9.0±0.5	um
Cable Cut-offWavelength		≤1260	≤1450	≤1450	nm
PMD (Individual fiber)		≤0.2	≤0.2	≤0.2	ps/km1/2
Cladding Diameter		125±1	125±1	125±1	um
Core/Cladding Concentricity Error		≤0.5	≤0.5	≤0.6	um
Cladding Non-Circularity		≤1.0	≤1.0	≤1.0	%
Coating Non-Circularity		≤6.0	≤6.0	≤6.0	%
Primary Coating Diameter		245±10	245±10	245±10	um
Proof-Test Level		100 (0.7)	100 (0.7)	100 (0.7)	Kpsi/GN/m2
Fatigue Coefficient		≥20	≥20	≥20	
Temperature Dependence between 0°C ~ +70°C @ 1310 & 1550nm		0.1	0.1	0.1	Db/km

The fibers contain no splices.

Electrical Properties @20°C:

20AWG Power Cable

Conductor Resistance @ 20°C : 35.3 ohm/km

Insulation Resistance: ≥10GOhmxkm

24AWG Signal Conductor

Conductor Resistance @ 20°C: 95Ohm/km

Insulation Resistance: ≥10GOhmxkm

Mechanical Properties:

Max. Pulling Load

- Under installation: 1500N

- In service: 600N

Maximum Compressive Load: 1000N

Minimum Bending Radius:

- Under installation: 20×OD
- During operation: 10×OD.

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.