

Polyethylene Sacrificial Sheath Loose Tube Fibre Optic Cable.

Dataflow PE sacrificial sheath cable can be direct buried , used in a conduit or a duct installation. The polyethylene sheath adds an additional mechanical barrier when cable hauling for the protection of the inner nylon jacket avoiding ingress points where termites can enter the cable.

Cable Construction

ACMA – AS/CA S008

- **Multi – loose tube construction**
- **Sacrificial Sheath** : Polyethylene UV Stabilized
- **Hard Jacket** : UV Stabilised polymide (Nylon) bonded to polyethylene sheath
- **Sheath** : Polyethylene
- **Waterblocking** : Water swellable elements (Drycore)
- **Tube** : Thermoplastic material , containing up to 12 fibres with thixotropic gel.
- **Central Strength Member** : Glass fibre reinforced plastic (GRP)



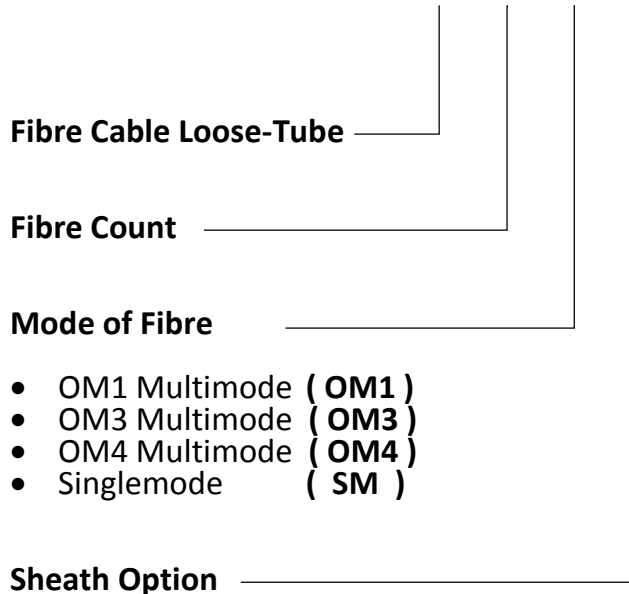
Technical Information

Fibre Count:	2-72	84-96	108-120	132-144
Cable Nominal Diameter (mm)	12.0	12.7	14.2	15.6
Tube / Filler Diameter (mm)	2.1	2.1	2.1	2.1
Cable Nominal Weight (kg/km)	105	128	165	196
Number of Elements	6 x 12	8 x 12	10 x 12	12 x 12
Installation Tension in kN (Max)	2.0	2.0	2.5	2.5
Crush Resistance kN/100mm (Max)	2.0 (Short term) / 1.0 (Long term)			
Minimum Bending Radius (mm)	At full load : 20 x Cable OD At no load : 10 x Cable OD			
Temperature Range (°C)	Installation -0->+50 Transport & Storage – 20-> +70 Operation – 10-> +70			

Ordering Information

Dataflow Part Number :

FCLT-XX-XXX-XX















- OM1 Multimode (**OM1**)
- OM3 Multimode (**OM3**)
- OM4 Multimode (**OM4**)
- Singlemode (**SM**)

- Sacrificial Sheath (**SS**)

** Various other sheath options and constructions available **

Identification for Buffer and Tube Colours

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
												

Main Mechanical Characteristics

Tensile Strength

Test Method : IEC 60794-1-2-E1

Test Condition : Load as per cable maximum tensile strength. (In table above)

Acceptance Criteria : After 30 minutes the maximum strain on the fibre should not exceed 0.6% and no attenuation increase greater than 0.1dB occurs.

Crush

Test method : IEC 60794-1-2-E3

Test Condition : Short Time : 10 min / Long Time 120 min
Load as per maximum crush resistance in table above.
Number of positions : 3 Adjacent sections.
(Ensuring one over tube and one over lay reversal)

Acceptance Criteria : No damage to sheath or to core structure and no attenuation increase greater than 0.1dB occurs.

Impact

Test method : IEC 60794-1-2-E4

Test Condition : Weight 1.5kg / Height 1.0m / Anvil Radius 12.5mm / Impacts 1

Acceptance Criteria : After 5 minutes no fibre breaks , no damage to the sheath or to the core structure and no attenuation increase greater than 0.1dB occurs.

Torsion

Test Method : IEC 60794-1-2-E7

Test Condition : Sample Length : 1mtr ,Tension as per above table ,
Rotation: A) 180° clockwise , B) Return to starting position
C) 180° Anti-clockwise , D) Return to starting position.
Four movements constitute 1 cycle. Complete 10 cycles
A to D in one minute maximum.

Acceptance Criteria : During the final tenth cycle at A) , C) and after completion(No rotation) check transmitting fibres. No fibre breaks , no damage to sheath or to the core structure and no attenuation increase greater than 0.1dB occurs.

Bend

Test Method : IEC 60794-1-2-E11

Test Condition : Mandrel diameter : 20 x Cable OD Bend 360° (1 Turn)

Acceptance criteria : No attenuation increase greater than 0.1dB occurs.

Bend under tension

Test Method : Concurrent to tensile test : IEC 60794-1-2-E18

Test Condition : Mandrel Diameter : 40 x Cable OD Bend : 360° (1 Turn)

Acceptance criteria After 1 minute no fibre breaks , no damage to sheath or to the core structure and no attenuation increase greater than 0.1dB occurs from no load to full load.

Temperature Cycling

Test Method : IEC 60794-1-2-F1

Test Condition : Sample length : 1000m (Minimum)
Temperature range : From -10°C to +70 °C

Acceptance criteria : There should be no average attenuation increase at the temperature extremes when compared to the attenuation at ambient temperature. No individual fibre should measure an attenuation greater than 0.15dB/km

Water Penetration

Test Method : IEC 60794-1-2-F5B

Test Condition : Sample length = 3m , Water Height = 1m

Acceptance criteria : No water leakage after 24 hours.
