Pre-Terminated Loose Tube Cable Assemblies

AFL's Pre-Terminated Loose Tube Cable Assemblies provide a high-performance, customisable solution for fibre network installations in nearly any external or harsh environment. Utilising cables from our Terrestrial Loose Tube Cable range, our assemblies can be configured with cables from our latest Axial, Conventional Stranded, MicroCore, High Strength and Flat Rod Armoured families which feature a variety of jacket options, from PE/NY, Sacrificial Sheath, LSZH and more.

Pre-terminated cables offer the advantage of reduced turn-up time and costs associated with on-site cable breakout, connector terminations and splicing. They are ideally suited where narrow installation time-frames are applicable or on-site terminations are hazardous or encounter OH&S issues.

Used in conjunction with AFL's fibre management systems, our pre-terminated cable assemblies provide a reliable, high-performance solution for a vast range of network requirements and applications.

Features

- Wide range of cable options.
- High quality, machine polished connectors for consistent low loss performance.
- Configurable options to suit installation requirements.
- High density solutions, up to 288F using LC Uniboot.

Applications

- Intrabuilding networks
- Backbone installations
- Direct buried / underground in conduit

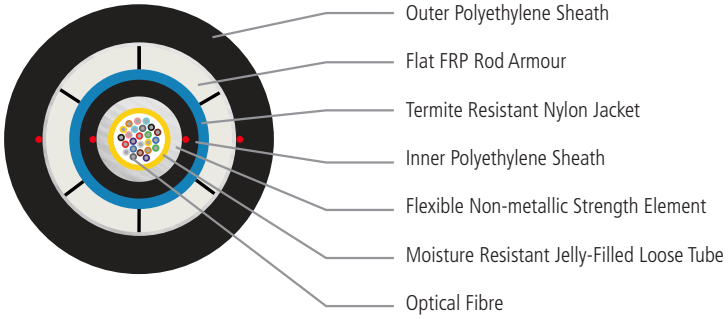
Cable Options

AFL manufacture a wide range of Loose Tube cables which are suitable for pre-terminated cable assemblies. If the cable options listed below do not meet your requirement, please consult our cable data sheets or contact AFL for assistance.

Flat Rod Armoured Loose Tube Cable

Available in both Axial (up to 12F in MM, 24F in SM) and Stranded (up to 144F) configurations, AFL's Non-metallic FRP armoured loose tube cables are engineered to withstand high tensile and crush loads. Key to the high strength design is the use of Flat FRP strength elements providing enhanced tensile and crush performance characteristics.

Coupled with the Flat FRP Armour against rodent attack, the nylon jacket provides an insect (termite) resistant layer, strategically positioned to ensure longevity. The cable is then sheathed with an outer UV stabilized Polyethylene (PE) compound.

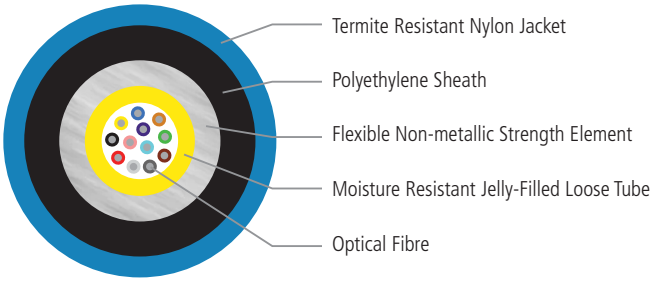


24F RLD Non-Metallic Flat FRP Armoured Loose Tube Cable - Cross Section

Pre-Terminated Loose Tube Cable Assemblies

Axial Loose Tube Cable

Standard (non-armoured) Axial cables are available in Mini (≤12F) and Single (≤12F MM, ≤24F SM) Axial configurations. These cables contain optical fibres in a jelly-filled loose tube strengthened with flexible non-metallic elements, bonded to a polyethylene (PE) sheath and an outer UV stable, termite resistant nylon jacket.

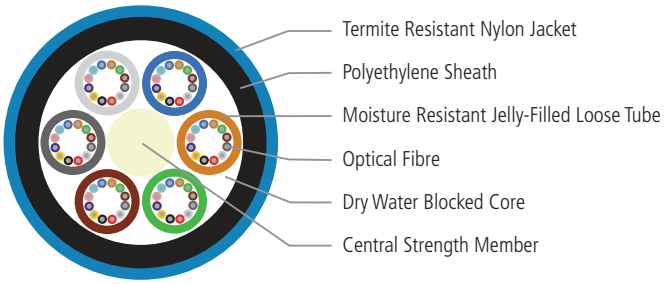


24F LQD Single Axial Loose Tube Cable – Cross Section

Stranded Loose Tube Cable

Stranded cable comprising of up to 288 optical fibres contained in jelly-filled loose tubes (up to 12 fibres per tube). The tubes and fillers are laid around a central strength member and contained within a dry, water blocked cable core, sheathed with Polyethylene (PE) and UV stable, termite resistant nylon jacket.

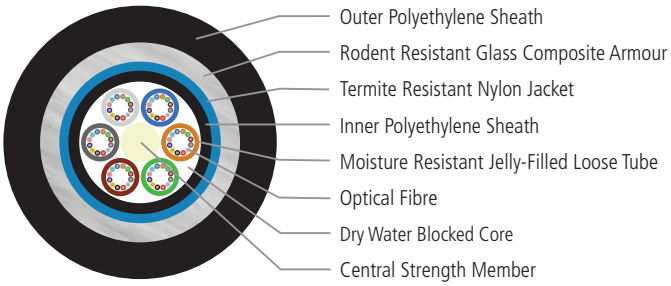
Further processing to Stranded cables can add either an additional UV stable, sacrificial PE outer sheath for installation through torturous paths, as well as Non-Metallic Armouring (NMA) + sacrificial sheath for added rodent resistance, robustness and tensile strength.



72F LMD Stranded Loose Tube Cable - Cross Section

Non-Metallic Armoured Stranded Loose Tube Cable

NMA Stranded cable comprising up to 144 optical fibres contained in jelly-filled loose tubes (up to 12 fibres per tube). The tubes and fillers are laid around a central strength member and contained within a dry, water blocked cable core, sheathed with polyethylene (PE), termite resistant nylon, glass composite armour and outer UV stable, polyethylene sheath.



72F NMD Non-Metallic Armoured Stranded Loose Tube Cable – Cross Section

Pre-Terminated Loose Tube Cable Assemblies

Connector Options

AFL's Pre-terminated Loose Tube cable assemblies can be terminated with all standard discrete connector options, such as LC, SC, ST and FC. For MTP Loose Tube cable assemblies, please contact AFL.

Discrete Connectors (SC,LC,ST,FC)

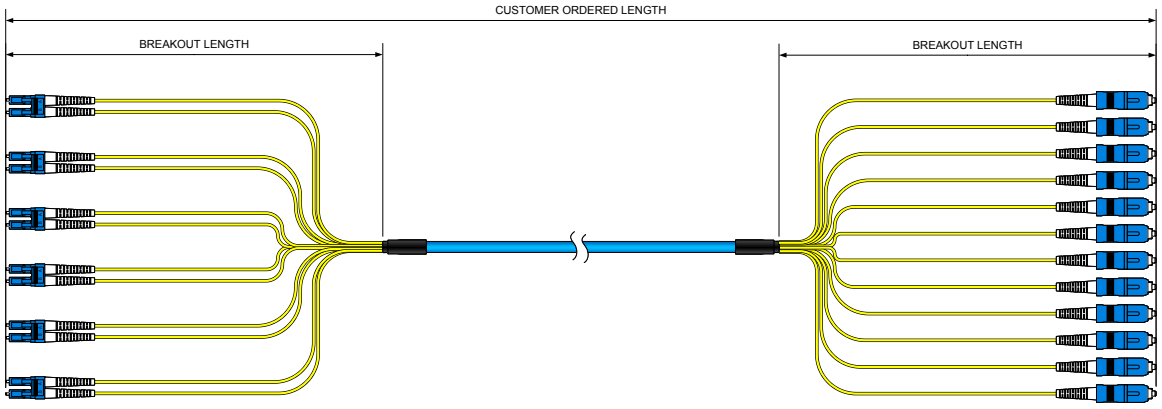
OPTICAL PERFORMANCE	VALUE	TEST METHOD
Insertion Loss (Max.)	≤ 0.25 dB	IEC 61300-3-4
Return Loss (SM,UPC)	≥ 55 dB	IEC 61300-3-6
Return Loss (SM,APC)	≥ 65 dB	IEC 61300-3-6

Specifications

Assembly Dimensions and Staggering

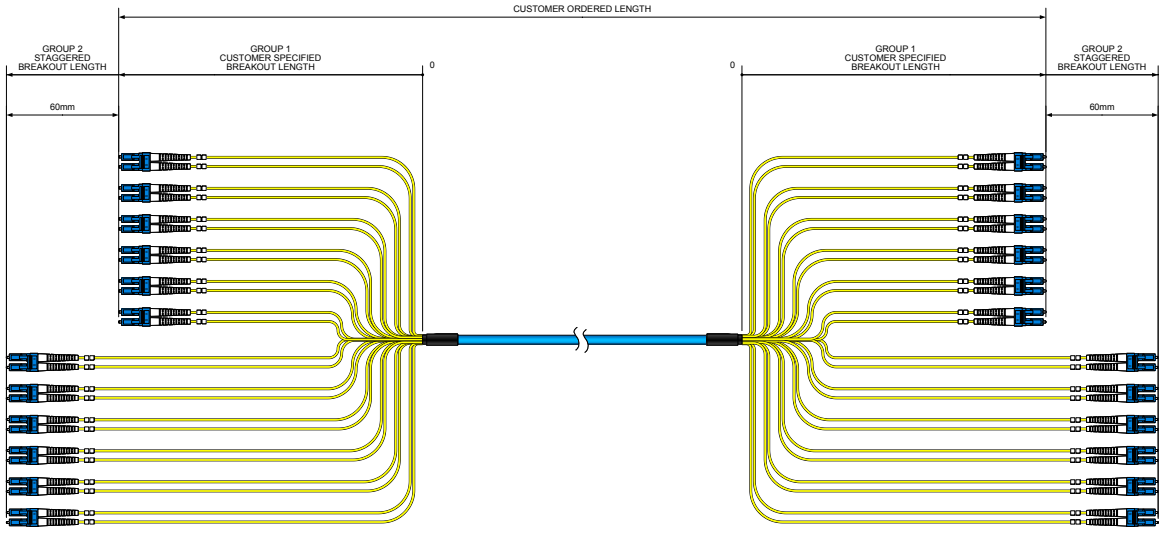
1F - 12F

For cable assemblies 12F or less, the customer ordered length is measured between the connector ferrules on each end. Breakout length is measured from the tail end of the breakout module point to the connector ferrule.



24F - 288F

For cable assemblies greater than 12F, the connectors will be staggered in groups of 12 fibres, increasing in length by 60mm per group. The customer ordered length is measured between the connector ferrules in the first groups on each end.



Pre-Terminated Loose Tube Cable Assemblies

Accessories and Installation Aids

Installation Aids

Loose Tube cable assemblies can be configured with a protective mesh. This mesh is fixed to the cable jacket with a hose clamp, providing an extra layer of protection over the standard bubble wrap and light duty hauling capability. For installations in water-logged conduits, AFL recommend a pigtail assembly.

Cable Glands

Loose Tube cable assemblies can be configured with compression style cable glands for retention in fibre management systems. Sizes available are M16, M20, M25 and M32.

Ordering Options

LT	E	xxx	LD	LD	33E99043	2	K	250

Product Type:
LT = Pre-Terminated Loose Tube Cable Assemblies

Assembly Fibre Count:
1 = 1F
A = 2F
B = 4F
C = 6F
E = 12F
G = 24F
I = 48F
K = 72F
L = 96F
N = 144F
O = 288F

Cable Part Number Index[1]

End A / **End B**

Connector Options[4]:
LD = LC/UPC Duplex
LC = LC/UPC Simplex
LA = LC/APC Duplex
LS = LC/APC Simplex
LB = LC/UPC Uniboot
SC = SC/UPC Simplex
SA = SC/APC Simplex
ST = ST/UPC Simplex
FC = FC/UPC Simplex
FA = FC/APC Simplex
XX = Blunt (Pigtail)

Shipping Reel[3]

Internal Use

Length:
2 = 2 Metres
250 = 250 Metres

3		3		E		9		9		0		4		3	
BREAKOUT LENGTH END A		**BREAKOUT LENGTH END B**		**OVERSLEEVING END A & B**		**OVERSLEEVING COLOUR END A**		**OVERSLEEVING COLOUR END B**		**STAGGERING[2] END A & B**		**INSTALLATIONS AID END A & B**		**GLAND OPTIONS END A & B**	
0	N/A	0	N/A	E	End A: 2mm End B: 2mm	0	Not Applicable (Blunt)	0	Not Applicable (Blunt)	0	Not Required	0	End A: Not Required End B: Not Required	0	End A: Not Required End B: Not Required
1	300mm	1	300mm	G	End A: 2mm End B: Not Applicable (Blunt)	2	Orange	2	Orange	1	End A: Groups of 12 Fibres End B: Not Required (Blunt)	4	End A: Protective Mesh End B: Not Required	7	End A: M20 Gland Nylon End B: Not Required
2	400mm	2	400mm	M	End A: Not Applicable (Blunt) End B: 2mm	9	Yellow	9	Yellow	2	End A: Not Required (Blunt) End B: Groups of 12 Fibres	5	End A: Not Required End B: Protective Mesh	8	End A: Not Required End B: M20 Gland Nylon
3	500mm	3	500mm			C	Aqua	C	Aqua	3	End A: Groups of 12 Fibres End B: Groups of 12 Fibres	6	End A: Protective Mesh End B: Protective Mesh	9	End A: M20 Gland Nylon End B: M20 Gland Nylon
4	600mm	4	600mm											A	End A: M25 Gland Nylon End B: Not Required
5	700mm	5	700mm											B	End A: Not Required End B: M25 Gland Nylon
6	800mm	6	800mm											C	End A: M25 Gland Nylon End B: M25 Gland Nylon
7	900mm	7	900mm											D	End A: M32 Gland Nylon End B: Not Required
8	1000mm	8	1000mm											E	End A: Not Required End B: M32 Gland Nylon
A	1500mm	A	1500mm											F	End A: M32 Gland Nylon End B: M32 Gland Nylon
9	2000mm	9	2000mm												

1. **Cable Part Number Index**: The Cable Part Number Index is an assigned three character code for a unique cable part number. The three characters thus removes the need to define, as part of the assembly, the commonly user defined attributes such as fibre type, jacket colour and cable fibre count because this is captured within the cable part number along with other cable attributes such as cable construction, jacket materials and armouring. Please refer to AFL's Loose Tube Cable datasheets for part numbers, or alternatively, work with your AFL Sales Representative on which cable best suits your requirement.
2. **Staggering End A & End B:** Cable assemblies, with an assembly fibre count >12f, have connectors staggered in groups of 12 fibres and 60mm apart.
3. **Shipping Reel:** In the process of configuring an assembly, and when a reel is required, a shipping reel with the lowest calculated cable capacity which satisfies the nominated cable's minimum bend radius and assembly length will be selected.
4. **Connector Options:** If applicable, the END A connector option selected will be presented on the outside of the shipping reel.

Note: For pre-termined Loose Tube cable assemblies that cannot be configured via the ordering options above, please contact AFL.