



FiberHome Telecommunication Technologies Co, Ltd

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## **FiberHome Cable Specification**



Wuhan FiberHome International Technologies Co., LTD

## ADSS –4/8 B1.3 Span 80m

Max operating weather conditions: 25m/s wind speed and no ice load

### Cable cross-section and dimensions

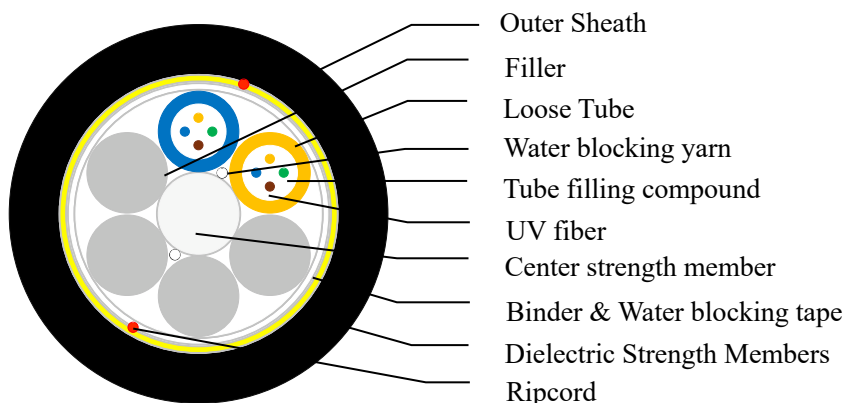


Figure. Cable Cross-Section (A-end)

Item	Material	Description
Outer sheath	HDPE	HDPE
Dielectric Strength Members	Aramid yarns	Additional strength member
Binder	Polyester yarn	Cable core binding
Water blocking yarn	Water blocking yarn	Water blocking & moisture proof
Water blocking tape	Water blocking tape	Water blocking & moisture proof
Filler	PP	Diameter same as tube
Loose tube	PBTP	Colors of tubes: 4FO: blue 8FO: blue, orange
Tube filling compound	Thyrotrophic gel	Water Blocking & Moisture Proof
Fiber	Silicon-based fiber(G.652D)	UV fiber, color with: blue, orange, green, brown
Center strength member	FRP	FRP
Cable O.D.	9.5 ± 0.5mm	
Cable weight	70 ± 15kg	

### Cable main mechanical properties and application

Serial No.	Item	Requirement
1	MAT	1500N
2	Allowable crush resistance	1500N /10cm
3	Operation temperature	-25 ° C +65° C

## ADSS-12/24 B1.3 Span 80m

Max operating weather conditions: 25m/s wind speed and no ice load

### Cable cross-section and dimensions

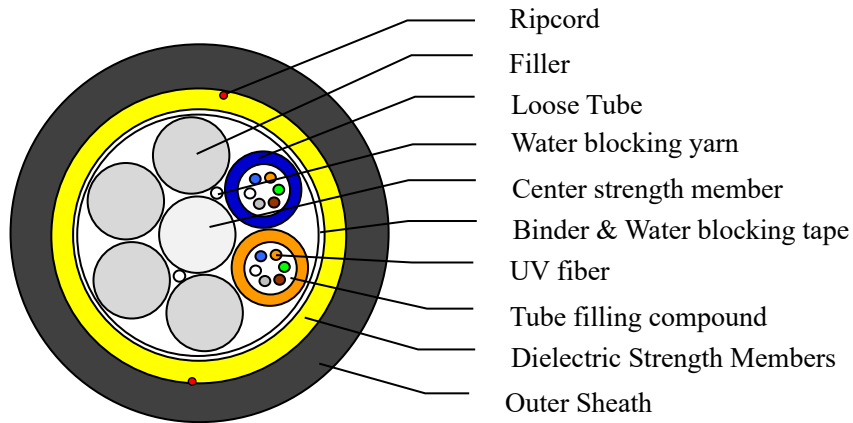


Figure. Cable Cross-Section (A-end)

Item	Material	Description
Outer sheath	HDPE	HDPE
Dielectric Strength Members	Aramid yarns	Additional strength member
Binder	Polyester yarn	Cable core binding
Water blocking yarn	Water blocking yarn	Water blocking & moisture proof
Water blocking tape	Water blocking tape	Water blocking & moisture proof
Filler	PP	Diameter same as tube,
Loose tube	PBTP	Colors of tubes: 12FO: blue, orange 24FO: blue, orange, green, brown
Tube filling compound	Thyrotrophic gel	Water Blocking & Moisture Proof
Fiber	Silicon-based fiber(G.652D)	UV fiber, color with: blue, orange, green, brown, gray, white
Center strength member	FRP	FRP
Cable O.D.		9.5 ± 0.5mm
Cable weight		72 ± 15kg

### Cable main mechanical properties and application

Serial No.	Item	Requirement
1	MAT	1500N
2	Allowable crush resistance	1500N /10cm
3	Operation temperature	-25 ° C +65° C

## ADSS-48/72 B1.3 Span 80m

Max operating weather conditions: 25m/s wind speed and no ice load

### Cable cross-section and dimensions

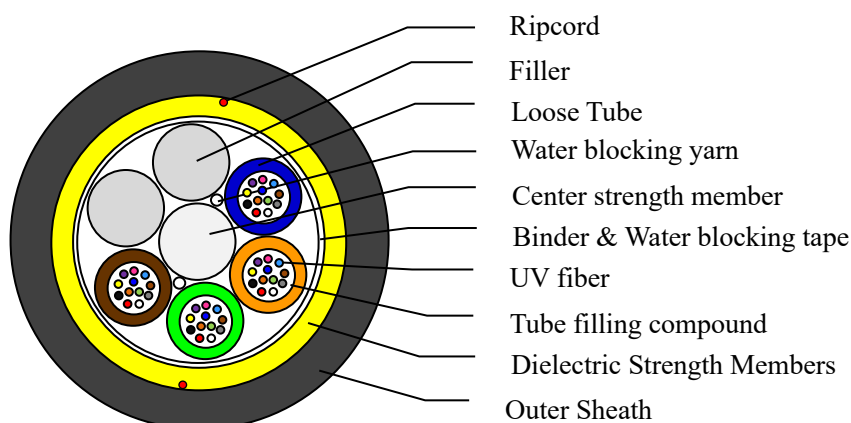


Figure. Cable Cross-Section (A-end)

Item	Material	Description
Outer sheath	HDPE	HDPE
Dielectric Strength Members	Aramid yarns	Additional strength member
Binder	Polyester yarn	Cable core binding
Water blocking yarn	Water blocking yarn	Water blocking & moisture proof
Water blocking tape	Water blocking tape	Water blocking & moisture proof
Filler	PP	Diameter same as tube,
Loose tube	PBTP	Colors of tubes: 48FO:blue, orange, green, brown 72FO: blue, orange, green, brown, gray, white
Tube filling compound	Thyrotrophic gel	Water Blocking & Moisture Proof
Fiber	Silicon-based fiber(G.652D)	UV fiber, color with: blue, orange, green, brown, gray, white, red, black, yellow, violet, pink, aqua
Center strength member	FRP	FRP
Cable O.D.	10.1 ± 0.5mm	
Cable weight	80 ± 15kg	

### Cable main mechanical properties and application

Serial No.	Item	Requirement
1	MAT	1500N
2	Allowable crush resistance	1500N /10cm
3	Operation temperature	-25° C +65° C

## ADSS-96 B1.3 Span 80m

Max operating weather conditions: 25m/s wind speed and no ice load

### Cable cross-section and dimensions

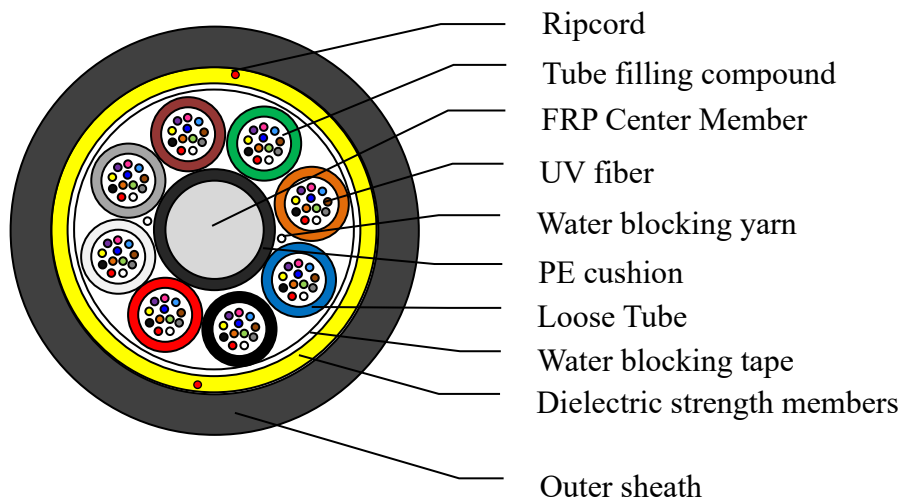


Figure. Cable Cross-Section (A-end)

Item	Material	Description
Outer sheath	HDPE	HDPE
Dielectric strength members	Aramid yarns	Additional strength member
Binder	Polyester yarn	Cable core binding
Water blocking tape	Water blocking tape	Water blocking & moisture proof
Loose tube	PBT	Colors of tubes: blue, orange, green, brown, gray, white, red, black
Tube filling compound	Thyrotrophic gel	Water Blocking & Moisture Proof
Fiber	Silicon-based fiber(G.652D)	UV fiber, color with: blue, orange, green, brown, gray, white, red, black, yellow, violet, pink, aqua
Center strength member	FRP+PE	FRP+PE
Cable O.D.		11.6 ± 0.5mm
Cable weight		105 ± 15kg/km

### Cable main mechanical properties and application

Serial No.	Item	Requirement
1	MAT	2000N
2	Allowable crush resistance	1500N /10cm
3	Operation temperature	-25℃ ~+65℃

## ADSS-144B1.3 Span 80m

Max operating weather conditions: 25m/s wind speed and no ice load

### Cable cross-section and dimensions

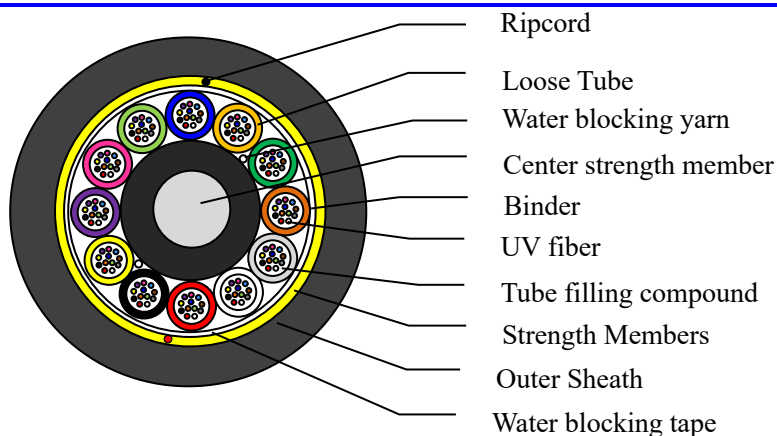


Figure. Cable Cross-Section (A-end)

Item	Material	Description
Outer sheath	HDPE	chemical and tracking resistant
Binder	Polyester yarn	Cable core binding
Dielectric strength members	Aramid yarns	Additional strength member
Water blocking tape	Water blocking tape	Water blocking & moisture proof
Loose tube	PBT	Colors of tubes: blue, orange, green, brown, gray, white, red, black, yellow, violet, pink, aqua
Tube filling compound	Thyrotrophic gel	Water Blocking & Moisture Proof
Fiber	Silicon-based fiber(G.652D)	UV fiber, color with: blue, orange, green, brown, gray, white, red, black, yellow, violet, pink, aqua
Center strength member	FRP+PE	FRP+PE
Cable O.D.		14.5 ± 0.5mm
Cable weight		163 ± 15kg/km

### Cable main mechanical properties and application

Serial No.	Item	Requirement
1	MAT	2800N
2	Allowable crush resistance	1500N /10cm
3	Operation temperature	-25°C ~+65°C

<b>G.652D fiber characteristics</b>		
<b>Optics specifications</b>		
Attenuation	@1310nm	$\leq 0.35\text{dB/km}$
	@1550nm	$\leq 0.22\text{dB/km}$
	@1625nm	$\leq 0.24\text{dB/km}$
Dispersion	@1285nm~1340nm	$-3.0\text{ps}/(\text{nm}\cdot\text{km})\sim 3.0\text{ps}/(\text{nm}\cdot\text{km})$
	@1550nm	$\leq 18\text{ps}/(\text{nm}\cdot\text{km})$
	@1620nm	$\leq 22\text{ps}/(\text{nm}\cdot\text{km})$
Zero-Dispersion wavelength		1300nm~1324nm
Zero-Dispersion slope		$\leq 0.092\text{ps}/(\text{nm}^2\cdot\text{km})$
Mode field diameter (MFD) at 1310nm		$9.2\pm 0.4\mu\text{m}$
Mode field diameter (MFD) at 1550nm		$10.4\pm 0.8\mu\text{m}$
PMD	Max. for fiber on the reel	$0.20\text{ps}/\text{km}^{1/2}$
	Max. for link designed value	$0.10\text{ps}/\text{km}^{1/2}$
Cable cutoff wavelength $\lambda_{cc}(\text{nm})$		$\leq 1260\text{nm}$
<b>Back scatter characteristics (at 1310nm&amp;1550nm)</b>		
Point discontinuity		$\leq 0.05\text{dB}$
Attenuation uniformity		$\leq 0.05\text{dB/km}$
Attenuation coefficient difference for bi-directional measurement		$\leq 0.05\text{dB/km}$
<b>Geometrical characteristics</b>		
Cladding diameter		$125\pm 1.0\mu\text{m}$
Cladding non-circularity		$\leq 1\%$
Core/cladding concentricity error		$\leq 0.8\mu\text{m}$
Fiber diameter with coating (uncolored)		$245\pm 10\mu\text{m}$
Cladding/coating concentricity error		$\leq 12.0\mu\text{m}$
<b>Mechanical characteristics</b>		
Proof stress		$\geq 0.69\text{GPa} (100\text{kpsi})$
Macrobend loss at 1550nm	$\phi 60\text{mm}, 100\text{ turns}$	$\leq 0.05\text{dB}$
	$\phi 32\text{mm}, 1\text{ turns}$	$\leq 0.05\text{dB}$