

Aerial Cable ADSS – 6 G652D Span 100m

Max Span: 100m Max applied voltage:110kv

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

Cable cross-section and dimensions

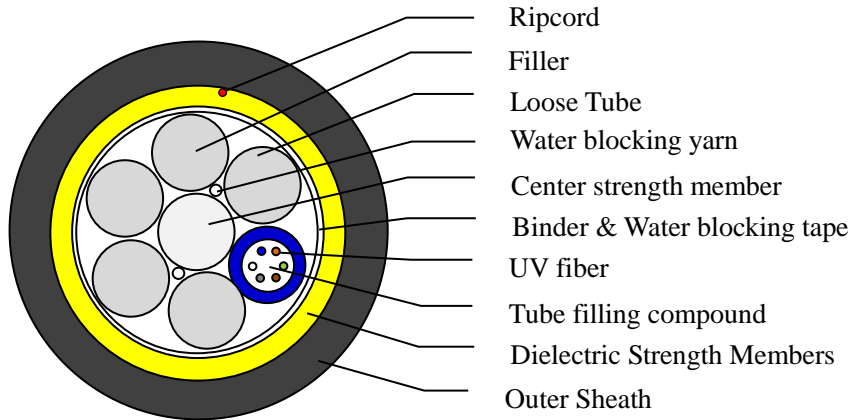


Figure. Cable Cross-Section (A-end)

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	PBT	Colors of tubes: blue
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		70 ± 15kg

Cable main mechanical properties and application

Serial No.	Item	Requirement
1	MAT	1700N
2	Allowable crush resistance (N)	1000N /10cm
3	Operation temperature	-20 °C +65 °C

Aerial Cable ADSS – 12 G652D Span 100m

Max Span: 100m Max applied voltage:110kv

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

Cable cross-section and dimensions

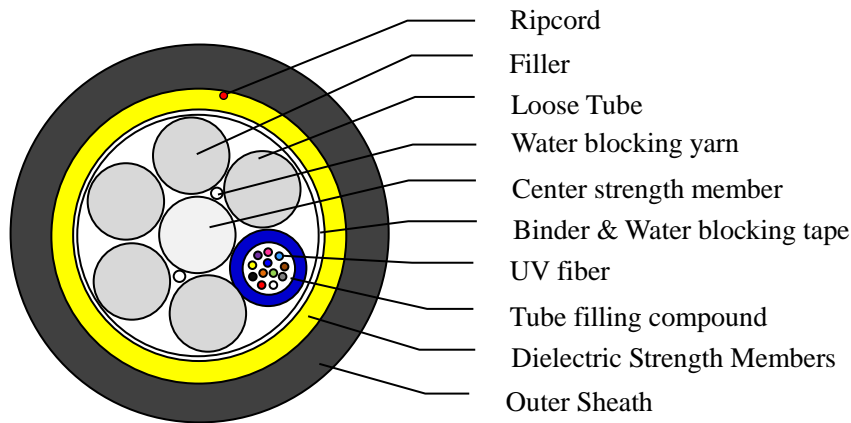


Figure. Cable Cross-Section (A-end)

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	PBT	Colors of tubes: blue
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	78 ± 15kg	

Cable main mechanical properties and application

Serial No.	Item	Requirement
1	MAT	1800N
2	Allowable crush resistance (N)	1000N /10cm
3	Operation temperature	-20 °C +65 °C

Aerial Cable ADSS – 24 G652D Span 100m

Max Span: 100m Max applied voltage:110kv

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

Cable cross-section and dimensions

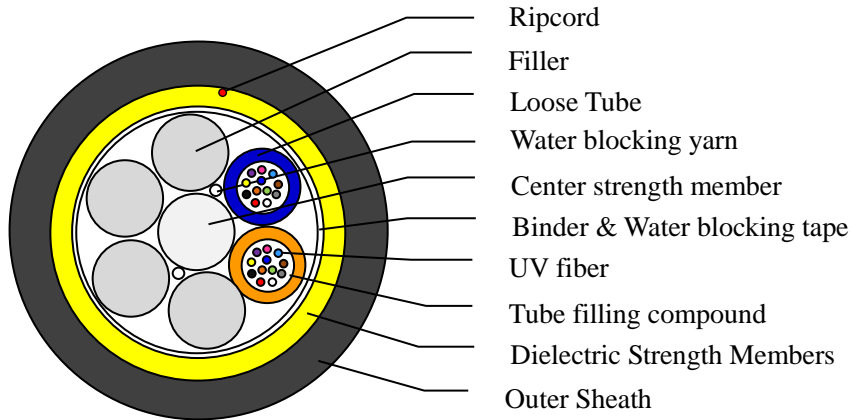


Figure. Cable Cross-Section (A-end)

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	PBT	Colors of tubes: 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, gray, white, red, black, yellow, violet, pink, aqua
Center strength member	FRP	FRP
Cable O.D.	$10.1 \pm 0.5\text{mm}$	
Cable weight	$78 \pm 15\text{kg}$	

Cable main mechanical properties and application

Serial No.	Item	Requirement
1	MAT	1800N
2	Allowable crush resistance (N)	1000N /10cm
3	Operation temperature	-20 °C +65 °C

Aerial Cable ADSS – 36 G652D Span 100m

Max Span: 100m Max applied voltage:110kv

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

Cable cross-section and dimensions

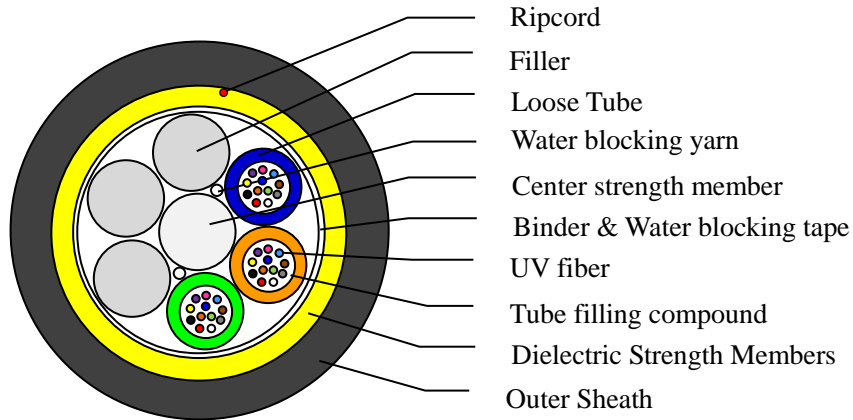


Figure. Cable Cross-Section (A-end)

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	PBT	Colors of tubes: blue, orange, green
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.	$10.1 \pm 0.5\text{mm}$	
Cable weight	$78 \pm 15\text{kg}$	

Aerial Cable ADSS – 48 G652D Span 100m

Max Span: 100m Max applied voltage:110kv

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

Cable cross-section and dimensions

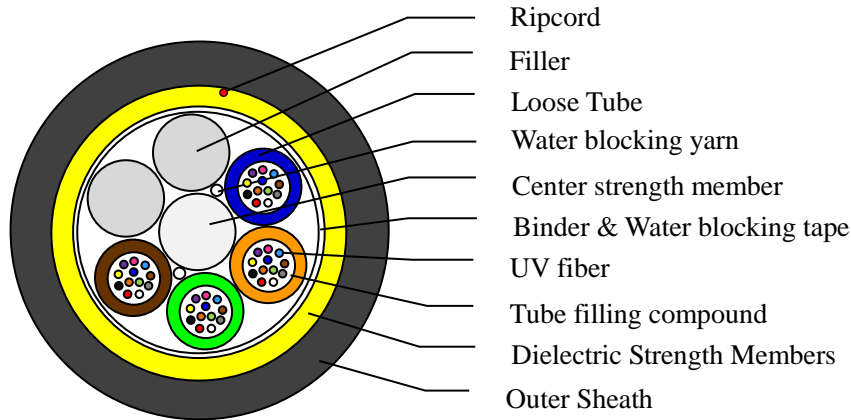


Figure. Cable Cross-Section (A-end)

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	PBT	Colors of tubes: 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, red, black, yellow, violet, pink, aqua
Center strength member	FRP	FRP
Cable O.D.		10.1 ± 0.5mm
Cable weight		78 ± 15kg

Cable main mechanical properties and application

Serial No.	Item	Requirement
1	MAT	1800N
2	Allowable crush resistance (N)	1000N /10cm
3	Operation temperature	-20 °C +65 °C

Aerial Cable ADSS – 72 G652D Span 100m

Max Span: 100m Max applied voltage:110kv

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

Cable cross-section and dimensions

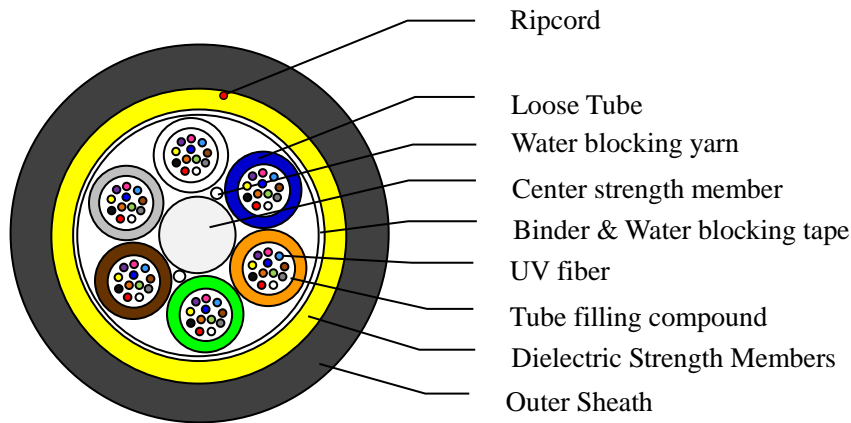


Figure. Cable Cross-Section (A-end)

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
Loose tube	PBT	Colors of tubes: 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.	$10.1 \pm 0.5\text{mm}$	
Cable weight	$78 \pm 15\text{kg}$	

Cable main mechanical properties and application

Serial No.	Item	Requirement
1	MAT	1800N
2	Allowable crush resistance (N)	1000N /10cm
3	Operation temperature	-20 °C +65 °C

Aerial Cable ADSS – 96 G652D Span 100m

Max Span: 100m Max applied voltage:110kv

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

Cable cross-section and dimensions

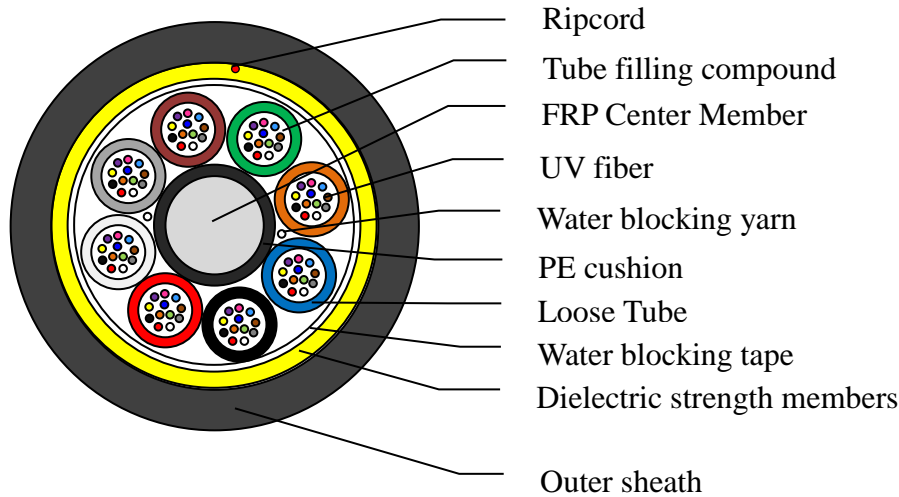


Figure. Cable Cross-Section (A-end)

Item	Material	Description
Outer sheath	HDPE	HDPE
Binder	Polyester yarn	Cable core binding
Water blocking tape	Water blocking tape	Water blocking & moisture proof
Water blocking yarn	Water blocking yarn	Water blocking & moisture proof
Loose tube	Loose tube	Colors of tubes: blue, orange, green, brown, gray, white, red, black
Dielectric strength members	Aramid yarns	Additional strength member
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.		$11.6 \pm 0.5\text{mm}$
Cable weight		$101 \pm 15\text{kg/km}$

Cable main mechanical properties and application

Serial No.	Item	Requirement
1	MAT	2100N
2	Allowable crush resistance (N)	1000N /10cm
3	Operation temperature	-20 °C +65 °C

G.652D fiber characteristics		
Optics specifications		
Attenuation	@ 1310nm	$\leq 0.350\text{dB/km}$
	@ 1383nm(after hydrogen aging)	$\leq 0.350\text{dB/km}$
	@ 1550nm	$\leq 0.210\text{dB/km}$
	@ 1625nm	$\leq 0.240\text{dB/km}$
Zero-Dispersion slope		$\leq 0.092\text{ps}/(\text{nm}^2 \text{ km})$
Dispersion	@ 1550nm	$\leq 18.0\text{ps}/(\text{nm km})$
	@ 1625nm	$\leq 22.0\text{ps}/(\text{nm km})$
Zero-Dispersion wavelength		1300nm~1324nm
Mode field diameter (MFD) at 1310nm		$9.2 \pm 0.6\mu\text{m}$
Mode field diameter (MFD) at 1550nm		$10.5 \pm 1.0\mu\text{m}$
Polarization Mode Dispersion	PMD (Single Value)	$\leq 0.20\text{ps}/\text{km}^{1/2}$
	$M \geq 20$	Cables
	Q	0.01%
	PMD _Q (Link Value)	$\leq 0.10\text{ps}/\text{km}^{1/2}$
Cable cutoff wavelength $\lambda_c(\text{nm})$		$1180\text{nm} \leq \lambda_c \leq 1330\text{nm}$
Cable cutoff wavelength $\lambda_{cc}(\text{nm})$		$\leq 1260\text{nm}$
Back scatter characteristics (at 1310nm&1550nm)		
Point discontinuity		$\leq 0.05\text{dB}$
Attenuation uniformity		$\leq 0.05\text{dB}/\text{km}$
Attenuation coefficient difference for bi-directional measurement		$\leq 0.05\text{dB}/\text{km}$
Geometrical characteristics		
Cladding diameter		$125 \pm 1.0\mu\text{m}$
Cladding non-circularity		$\leq 1.0\%$
Core concentricity error		$\leq 0.6\mu\text{m}$
Fiber diameter with coating (uncolored)		$245 \pm 15\mu\text{m}$
Fiber diameter with coating (colored)		$250 \pm 15\mu\text{m}$
Cladding/coating concentricity error		$\leq 12.5\mu\text{m}$
Curl		$\geq 4\text{m}$
Mechanical characteristics		
Proof stress		$\geq 0.69\text{GPa}(100\text{kpsi})$
Coating strip force (typical value)		1.4N
Dynamic stress corrosion susceptibility parameter (typical value)		≥ 20
Macrobend loss at 1550/1625nm	$\Phi 30\text{mm}, 100 \text{ turns}$	$\leq 0.10\text{dB}$
	$\Phi 16\text{mm}, 1 \text{ turns}$	$\leq 0.10\text{dB}$