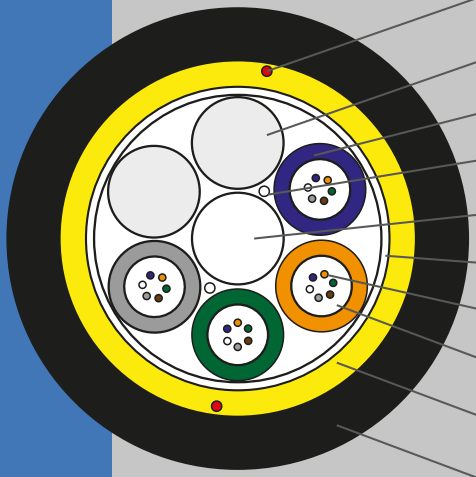
SELF-SUPPORTING AERIAL INSTALLATION CABLE ADSS G.652D

CROSS SECTION



- Ripcord
- Filler
- Lusse Tube
- Water blocking yarm
- Center strenght member
- Blinde & Water blocking tape
- Uv Fiber
- Tube filling compound
- Dielectric strenght members
- Outer sheath

TECHNICAL CHARACTERISTICS

- The unique second coating and stranding technology provide the fibers with enough space and bending
  endurance, which ensure good optical property of the fibers in the cable.
- FRP is applied as central strength member.
- Loose tubes are SZ stranded around the central strength member.
- Accurate process control ensures good mechanical and temperature performance.
- High quality raw material guarantees the long service life of cable.

Optical fiber is an ITU-T Recommendation G.652D compliant optical technologies:

Description	Specification
Mode Field diameter (MFD) @1310 nm	9.2 ± 0.4 [μm]
Mode Field diameter (MFD) @1550 nm	10.4 ± 0.5 [μm]
Cladding diameter	125.0 ± 0.7 [μm]
Core concentricity error	≤0.6 [μm]
Cladding non-concircularity	≤ 1.0%
Coating diameter (Before colored)	245 ± 10 [μm]
Coating diameter (colored)	250 ± 15 [μm]
Coating/cladding concentricity error	≤ 12 [μm]
Cable cutoff wavelength	≤1260 [nm]
Point discontinuity	≤0.05 [dB]
Attenuation coefficient:	
λ 1260 nm	≤0.47 [dB/km]
λ 1310 nm	≤0.35 [dB/km]
λ 1383 nm	≤0.35 [dB/km]
λ 1550 nm	≤0.25 [dB/km]
λ 1625 nm	≤0.25 [dB/km]
Macro-bend induced attenuation	
100 turns, 30mm radius @1550n/1625m	≤0.05 [dB]
PMD	
Max. individual fiber	≤ 0.2 [ps/√km]
PMDQ	≤ 0.1 [ps/√km]
Zero-dispersion wavelength	1300~1324 [nm]
Zero-dispersion slope	≤ 0.092 [ps/(nm²·km)]
Chromatic dispersion coefficient	
@1288-1339 nm	≤3.5ps/ (nm. km)
@1271-1360 nn	≤5.3ps / (nm. km)
@1550 nm	≤18ps/ (nm. km)
@1625 nm	≤22ps/ (nm. km)
Proof test level	100 [kpsi] (0.69 [Gpa]), 1% deformación
Coating strip force (peak value)	1.3~8.9 [N]
Fiber curl (Radius)	≥ 4 [m]

COLOR CODE OF FIBER

Each fiber will be identifiable throughout the length of the cable in accordance with the following color sequence. Fiber color starts from No. 1 Blue.

Fiber Color Code:

N°	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Grey	White
N°	7	8	9	10	11	12
Color	Red	Black	Yellow	Purple	Pink	Aqua

Código de Colores para tubos

N°	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Grey	White
N°	7	8	9	10	11	12
Color	Red	Black	Yellow	Purple	Pink	Aqua

Dimensions and Descriptions of Cable Constructions (ADSS-6cores-120m span)

Item	Contents	Value
		6
Structure	Type	1+6
Loose tube and Filler with a dielectric plugging compound	Fiber counts/tube	6
Loose tube	Material	PBT
	Number	1
Filler	Material	PP
	Number	5
Central strength member	Material	FRP
Water blocking	Material	Water blocking yarns + Water blocking tape
Peripheral strength member	Material	Aramid yarns
Outer sheath	Material	HDPE
		High Density Polyethylene
	Color	Black
Cable diameter(mm) Approx.		10.2±0.4
Cable weight(kg/km) Approx.		80±15

Dimensions and Descriptions of Cable Constructions (ADSS-12cores-120m span)

Item	Contents	Value
		12
Structure	Type	1+6
Loose tube and Filler with a dielectric plugging compound	Fiber counts/tube	6
Loose tube	Material	PBT
	Number	2
Filler	Material	PP
	Number	4
Central strength member	Material	FRP
Water blocking	Material	Water blocking yarns + Water blocking tape
Peripheral strength member	Material	Aramid yarns
Outer sheath	Material	HDPE
		High Density Polyethylene
	Color	Black
Cable diameter(mm) Approx.		10.2±0.4
Cable weight(kg/km) Approx.		80±15

Dimensions and Descriptions of Cable Constructions (ADSS-24cores-120m span)

Item	Contents	Value
		24
Structure	Type	1+6
Loose tube and Filler with a dielectric plugging compound	Fiber counts/tube	6
Loose tube	Material	PBT
	Number	4
Filler	Material	PP
	Number	2
Central strength member	Material	FRP
Water blocking	Material	Water blocking yarns + Water blocking tape
Peripheral strength member	Material	Aramid yarns
Outer sheath	Material	HDPE
		High Density Polyethylene
	Color	Black
Cable diameter(mm) Approx.		10.2±0.4
Cable weight(kg/km) Approx.		80±15

Dimensions and Descriptions of Cable Constructions (ADSS-48cores-120m span)

Item	Contents	Value
		48
Structure	Type	1+6
Loose tube and Filler with a dielectric plugging compound	Fiber counts/tube	12
Loose tube	Material	PBT
	Number	4
Filler	Material	PP
	Number	2
Central strength member	Material	FRP
Water blocking	Material	Water blocking yarns + Water blocking tape
Peripheral strength member	Material	Aramid yarns
Outer sheath	Material	HDPE High Density Polyethylene
	Color	Black
Cable diameter(mm) Approx.		10.2±0.4
Cable weight(kg/km) Approx.		80±15

Dimensions and Descriptions of Cable Constructions (ADSS-96cores-120m span)

Item	Contents	Value
		96
Structure	Type	1+8
Loose tube and Filler with a dielectric plugging compound	Fiber counts/tube	12
Loose tube	Material	PBT
	Number	8
Central strength member	Material	FRP
Water blocking	Material	Water blocking yarns + Water blocking tape
Peripheral strength member	Material	Aramid yarns
Outer sheath	Material	HDPE
		High Density Polyethylene
	Color	Black
Cable diameter(mm) Approx.		11.3±0.4
Cable weight(kg/km) Approx.		104±15

Dimensions and Descriptions of Cable Constructions (ADSS-144cores-120m span)

Item	Contents	Value
		144
Structure	Type	1+12
Loose tube and Filler with a dielectric plugging compound	Fiber counts/tube	12
Loose tube	Material	PBT
	Number	12
Central strength member	Material	FRP coated.
Water blocking	Material	Water blocking yarns + Water blocking tape
Peripheral strength member	Material	Aramid yarns
Outer sheath	Material	HDPE
		High Density Polyethylene
	Color	Black
Cable diameter(mm) Approx.		14.1±0.4
Cable weight(kg/km) Approx.		158±15

Main Mechanical and Environmental Performance Main mechanical performance (ADSS)

Item	MAT (KN)	Crush(N/100mm)	
		Short term	Long term
6/12/24	2.1	1000	300
48	2.4	1000	300
96	3.0	1000	300
144	4.1	1000	300

Environmental and installation condition (ADSS)

Max. wind speed	Max. ice thickness	Span	Initial Installation sag
30 m/s	0	120 [m]	1.5 %

Operation temperature: -40°C a +70°C
Storage temperature: -40°C a +70°C
Installation temperature: -10°C a +40°C

Min. bending radius
Static: 10 x cable diameter
Dynamic: 20 x cable diameter

Environmental Characteristics (1310 nm, 1550 nm y 1625 nm)
Temperature induced attenuation (-60°C ~ +85°C) ≤ 0.05 dB/km
Dry heat induced attenuation (85°C ±2°C, 30 días) ≤ 0.05 dB/km
Water immersion induced attenuation (23°C ±2°C, 30 días) ≤ 0.05 dB/km
Damp heat induced attenuation (85°C ±2°C, HR 85%, 30 días) ≤ 0.05 dB/km