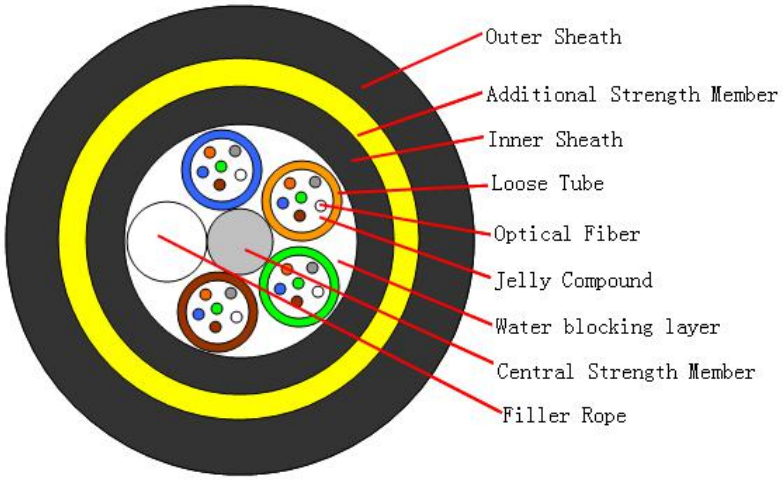
Shenzhen UnitekFiber Solution Limited

Double Sheath Non-metal Central Loose Tube fiber Optic Cable(ADSS-D)

Cable Design



Technical data

No. of cable		24
Fiber Model		G652D
Strength Member	Material	FRP
	Diameter（±0.05）mm	1.5
Loose Tube	Material	PBT
	Diameter（±0.06）mm	1.8
	Thickness（±0.03）mm	0.32
	The Max.Core NO./Tube	6
Water Blocking Layer		Flooding Compound
Additional Strength Member		Aramid Yarn
Inner Sheath	Material	PE
	Thickness（±0.1）mm	0.9
Outer Sheath	Material	PE
	Thickness（±0.1）mm	1.7
Cable Diameter（±0.2）mm		10.7
Cable Weight（±5）kg/km		92
Cable breaking strength(RTS)		≥12Kn

Shenzhen UnitekFiber Solution Limited

Working Tension (MAT)		≥5Kn
Wind velocity		30m/s
Icing		5mm
Span		100m
Crush Resistance	Short Term	≥2200（N/100mm）
	Long Term	≥1100 N/100mm）
Min. bending radius	Without Tension	10.0×Cable- ϕ
	Under Maximum Tension	20.0×Cable- ϕ
Temperature range （℃）	Installation	-20~+60
	Transport&Storage	-40~+70
	Operation	-40~+70

Tube Colors

No.	1	2	3	4
Color	Blue	Orange	Green	Brown

Fiber Colors

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Gray	White

The properties of single mode optical fiber (ITU-T Rec. G.652.D)

Item	Specification
Fiber type	Single mode
Fiber material	Doped silica
Attenuation coefficient @ 1310 nm @ 1383 nm @ 1550 nm @ 1625 nm	 ≤ 0.36 dB/km ≤ 0.32 dB/km ≤ 0.22 dB/km ≤ 0.30 dB/km
Point discontinuity	≤ 0.05 dB
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm^2.km)
Chromatic dispersion	≤3.5 ps/(nm. km)

@ 1288 ~ 1339 nm @ 1271 ~ 1360 nm @ 1550 nm @ 1625 nm	≤5.3 ps/(nm. km) ≤18 ps/(nm. km) ≤22 ps/(nm. km)
PMD_Q (Quadrature average*)	≤0.2 ps/$km^{1/2}$
Mode field diameter @ 1310 nm	9.2±0.4 um
Core / Clad concentricity error	≤ 0.5 um
Cladding diameter	125.0 ± 0.7 um
Cladding non-circularity	≤1.0%
Primary coating diameter	245 ± 10 um
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0℃~ +70℃ @ 1310 & 1550nm	≤ 0.1 dB/km

Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 794-1-2-E1	- Load: Short term tension - Length of cable: about 50m	- Fiber strain ≤ 0.36% - Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change ≤ 0.05dB@1550nm - No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	- Points of impact: 3 - Times of per point: 1 - Impact energy: 5J	- Loss change ≤ 0.1dB@1550nm - No fiber break and no sheath damage.
Temperature Cycling Test YD/T901-2001-4.4.4.1	- Temperature step: +20°C→-40°C→+70°C →+20°C - Time per each step: 12 hrs - Number of cycle: 2	- Loss change ≤ 0.05 dB/km@1550 nm - No fiber break and no sheath damage.