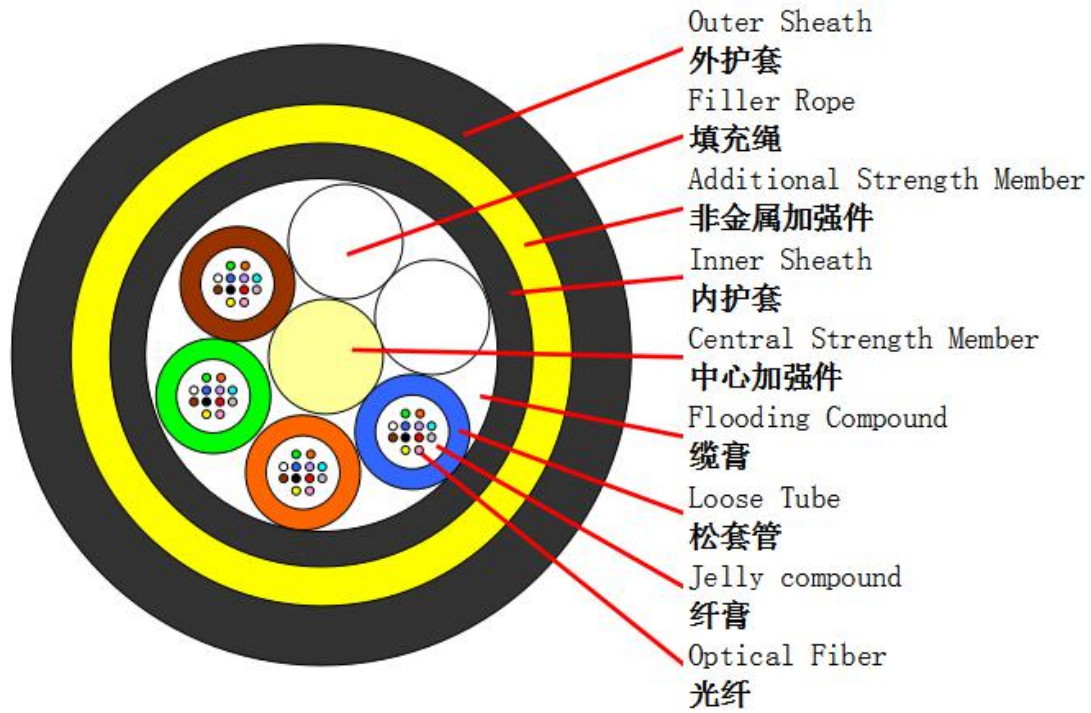


Double Jacket Fiber Optical Cable 48 cores ADSS-PE-Span-100M

Cable Design



Technical data

No. of cable		/	2-30	32-60	62-72	74-96
Design (StrengthMember+Tube&Filler)		/	1+5	1+5	1+6	1+8
Fiber type		/	G.652D			
Central Strength Member	Material	mm	FRP			
	Diameter ($\pm 0.05\text{mm}$)		1.5	1.5	2.1	2.1
Additional Sheath	Material	mm	MDPE			
	Thickness		—	—	—	0.65
	colour		Black.			
Loose Tube	Material	mm	PBT			
	Diameter ($\pm 0.05\text{mm}$)		1.8	2.1	2.1	2.1



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	Thickness ($\pm 0.03\text{mm}$)		0.32	0.35	0.35	0.35
	MAX.NO./per		6	12	12	12
Water Blocking Layer	Material	/	Flooding Compound			
Inner Sheath	Material	mm	MDPE			
	Thickness		0.9 (nominal)			
	colour		black.			
Additional Strength Member	Material	/	Aramid Yarn			
Outer Sheath	Material	mm	MDPE			
	Thickness		1.8 (nominal)			
	colour		black.			
Cable Diameter($\pm 0.2\text{mm}$)		mm	11.5	12.1	12.7	14.0
Cable Weight($\pm 10.0\text{kg/km}$)		kg/km	105	120	130	160
Attenuation coefficient	1310nm	dB/km	≤ 0.36			
	1550nm		≤ 0.22			
Cable breaking strength(RTS)		kn	≥ 20.0			
Working Tension (MAT)		kn	≥ 8.0			
Crush Resistance	Short Term	N/100	≥ 2200			
	Long Term	mm	≥ 1100			
Min. bending radius	Without Tension	mm	$10.0 \times \text{Cable- } \phi$			
	Under Maximum Tension		$20.0 \times \text{Cable- } \phi$			
Temperature range ($^{\circ}\text{C}$)	Installation	$^{\circ}\text{C}$	-20~+60			
	Transport&Storage		-40~+70			
	Operation		-40~+70			

Fibre&Loose Tube Colours

NO.	1	2	3	4	5	6
Colour	Blue	orange	green	brown	gray	white
	7	8	9	10	11	12
	red	black	Yellow	Violet	Pink	Aqua

The color of marking is white, but if the remarking is necessary, the **white color**



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marking shall be printed newly on a different position.

An occasional unclear of length marking is permitted if both of the neighboring markings are clear. The both cable ends are sealed with heat shrinkable end caps to prevent water ingress

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 @ 1288 ~ 1339 nm @ 1271 ~ 1360 nm @ 1550 nm @ 1625 nm	≤3.5 ps/(nm. km) ≤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 μm
Core / Clad concentricity error	≤ 0.5 μm
Cladding diameter	125.0 ± 0.7 μm
Cladding non-circularity	≤1.0%
Primary coating diameter	245 ± 10 μm
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0oC~ +70oC @ 1310 & 1550nm	≤ 0.1 dB/km



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Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 794-1-2-E1	<ul style="list-style-type: none"> - Load: Short term tension - Length of cable: about 50m 	<ul style="list-style-type: none"> - Fiber strain $\leq 0.15\%$ - Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	<ul style="list-style-type: none"> - Load: Short term crush - Load time: 1min 	<ul style="list-style-type: none"> - Loss change ≤ 0.05dB@1550nm - No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	<ul style="list-style-type: none"> - Points of impact: 3 - Times of per point: 1 - Impact energy: 5J 	<ul style="list-style-type: none"> - Loss change ≤ 0.1dB@1550nm - No fiber break and no sheath damage.
Temperature Cycling Test YD/T901-2001-4.4.4.1	<ul style="list-style-type: none"> - Temperature step: +20°C→-40°C→+70°C →+20°C - Time per each step: 12 hrs - Number of cycle: 2 	<ul style="list-style-type: none"> - Loss change ≤ 0.05 dB/km@1550 nm - No fiber break and no sheath damage.