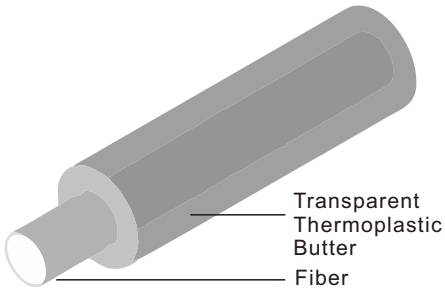
G.657.B3

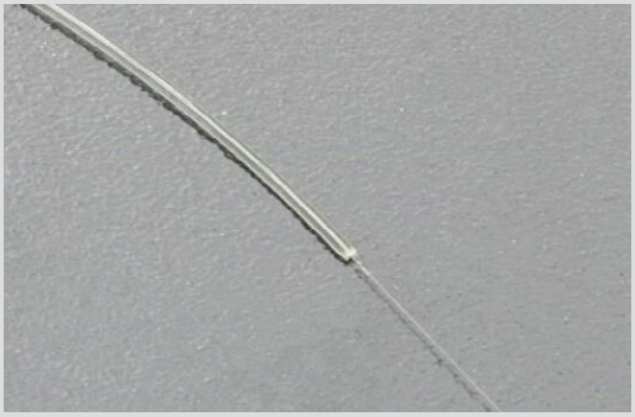
0.9mm Transparent Invisible Cable

The 0.9mm diameter Transparent Invisible optical cables for vertical wiring in buildings, which is a major component of the drop segment in FTTx networks, refer to the drop cables going from ducts in buildings into rooms.
Using light and portable hand-held installation tools, installers can quickly and easily install invisible cable on wall skirting, doors and windows.



Features
- Using G657B3 optical fibers, with excellent anti-bending performance
- Small size, precisely controlled route
- Transparent, suitable for indoor application
- Compatible with G.652D and G.657A2 optical fibers

Cable Diameter	Cable Weight	Tensile strength Long/short term	Bending radius Dynamic/static	Crush Long/short term (N/100mm)	Storage temperature
0.9mm	0.7kg/km	3/6N	60/30mm	100/500	-20 to +60 °C

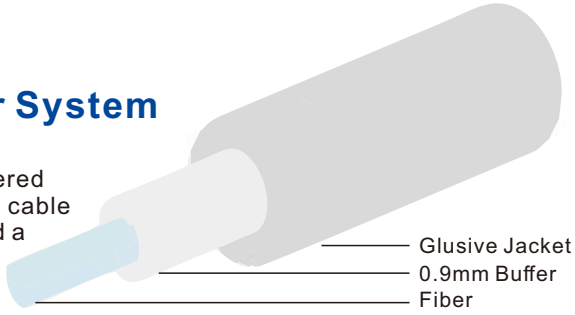


Installation Tool

Installation Tool

G.657.B3

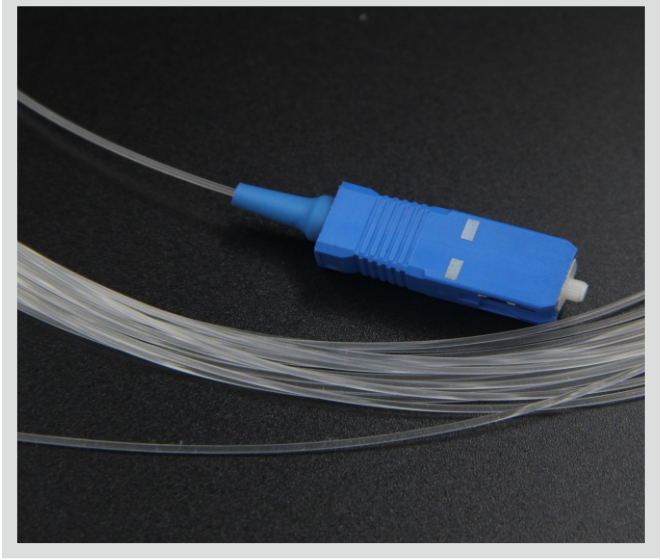
1.2mm TAC Thermal Adhesive Coated Fiber System

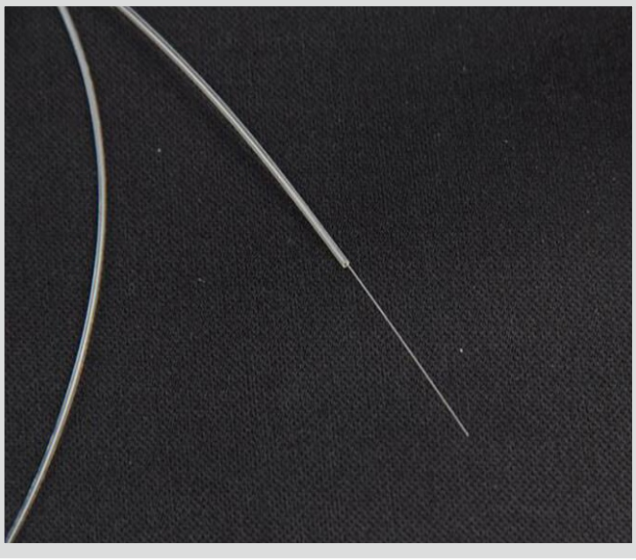


TAC invisible optical cable is the abbreviation for transparent tight-buffered thermal adhesive coated fiber covered with hot melt glue. It is an optical cable composed of G.657.B3 optical fiber, a transparent tight jacket layer, and a layer of hot melt adhesive. Each layer is extruded step by step using an extrusion process, with a nominal outer diameter of 1.2mm.

The application of invisible optical cable is the application where the user does not accept the use of leather fiber optic cable to enter the home or solves the problem of the user's difficulty in entering the home, especially in the old residential area and office. The fiber used is G.657.B3 fiber with a minimum bending radius of 5mm. When laying, there is no need to nail, make brackets, perforate, make pipes, etc., to destroy the original indoor structure, or because of the discontinuity of the laying, the optical cable will sag and fall off and other safety hazards. At the same time, the optical cable is almost transparent so it will not affect the indoor Beautiful, simple construction method, only need hand-held heating installation tools to complete the laying project.

Cable Diameter	Cable Weight	Tensile strength Long/short term	Bending radius Dynamic/static	Crush Long/short term (N/100mm)	Storage temperature
1.2mm	1.0kg/km	40/80N	20/10mm	100/500	-40 to +70 °C





G.657.B3

Fiber Characteristics

The fibre's macro bending performance and optical performance are superior to those recommended in ITU-T G.657.B3 and IEC 60793-2-50 B6.b3. Down to 5 mm bending radius, it can meet the complex installation conditions in MDU and FTTH, such as wall corner, stapling, high load tension, etc.

Characteristics		Conditions	Specified values	Units
Optical Characteristics				
Attenuation		1310nm	≤0.35	[dB/km]
		1383nm (after H_2-aging)	≤0.35	[dB/km]
		1550nm	≤0.21	[dB/km]
		1625nm	≤0.23	[dB/km]
Attenuation vs. Wavelength		1285-1330nm, in reference to 1310nm	≤0.03	[dB/km]
Max. α difference		1525-1575nm, in reference to 1550nm	≤0.02	[dB/km]
Zero Dispersion Wavelength (λ_0)		--	1300-1324	[nm]
Zero Dispersion Slope (S_0)		--	≤0.092	[ps/(nm^2·km)]
PMD	Maximum Individual Fibre	--	≤0.1	[ps/√km]
	Link Design Value (M=20, Q=0.01%)	--	≤0.06	[ps/√km]
	Typical Value	--	0.04	[ps/√km]
Cable Cutoff Wavelength (λ_{CC})		--	≤1260	[nm]
Mode Field Diameter (MFD)		1310nm	8.4-9.2	[μm]
		1550nm	9.3-10.3	[μm]
Effective Group Index of Refraction (N_{eff})		1310nm	1.468	--
		1550nm	1.469	--
Point Discontinuities		1310nm	≤0.05	[dB]
		1550nm	≤0.05	[dB]
Geometrical Characteristics				
Cladding Diameter		--	125.0±0.7	[μm]
Cladding Non-Circularity		--	≤0.7	[%]
Coating Diameter		--	235-245	[μm]
Coating-Cladding Concentricity Error		--	≤12.0	[μm]
Coating Non-Circularity		--	≤6.0	[%]
Core-Cladding Concentricity Error		--	≤0.5	[μm]
Curl (radius)		--	≥4	[m]
Delivery Length		--	Up to 25.2	[km/reel]
Environmental Characteristics		1310nm, 1550nm & 1625nm		
Temperature Dependence Induced Attenuation		-60℃ to +85℃	≤0.05	[dB/km]
Temperature-Humidity Cycling Induced Attenuation		-10°C to +85°C, 98% RH	≤0.05	[dB/km]
Water soak Dependence Induced Attenuation		23°C, for 30 days	≤0.05	[dB/km]
Damp Heat Dependence Induced Attenuation		85°C and 85% RH, for 30 days	≤0.05	[dB/km]
Dry Heat Aging		85℃, for 30 days	≤0.05	[dB/km]
Mechanical Specification				
Proof Test		--	≥9.0	[N]
		--	≥1.0	[%]
		--	≥100	[kpsi]
Macro-bend Induced Loss	1 Turn Around a Mandrel of 10 mm Radius	1550nm	≤0.03	[dB]
	1 Turn Around a Mandrel of 10 mm Radius	1625nm	≤0.1	[dB]
	1 Turn Around a Mandrel of 7.5 mm Radius	1550nm	≤0.08	[dB]
	1 Turn Around a Mandrel of 7.5 mm Radius	1625nm	≤0.25	[dB]
	1 Turns Around a Mandrel of 5 mm Radius	1550nm	≤0.15	[dB]
	1 Turns Around a Mandrel of 5 mm Radius	1625nm	≤0.45	[dB]
Coating Strip Force		typical average force	1.5	[N]
		peak force	1.3-8.9	[N]
Dynamic Fatigue Parameter (n_d)		--	≥20	--