

Special Provision to Special Specification 6007

Fiber Optic Cable



Special Specification 6007 "Fiber Optic Cable," is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 2.3., "Optical Requirements," Table 1, Optical Requirements is voided and replaced by the following:

Table1
Optical Requirements

	Singlemode
Cable Configuration	
Core Diameter (microns)	8.0-8.3
Cladding Diameter (microns)	125 ±1
Attenuation, (dB/km)	
850 nm	N/A
1300/1310 nm	0.4 or less
1550 nm	0.3 or less
Bandwidth, (MHz-km)	
850 nm	N/A
1300 nm	N/A
Dispersion, (ps/nm-km)	
1310 nm	3.2
1550 nm	17

Section 3.5., "Fiber Optic Accessories," is supplemented by the following:

- 3.5.5. Splice Enclosures.** Furnish and install splice enclosures at locations called for in the plans to accommodate the cables being spliced at that point. Furnish enclosures with a minimum of two ports to accommodate backbone fiber of up to 144 fibers and two ports for drop cables of up to 48 fibers.

Provide the end cap of the canister splice closure with re-enterable quick-seal cable entry ports to accommodate additional branch cables or backbone cables. Provide fiber optic splice enclosures with strain relief, splice organizers, and splice trays from the same manufacturer as the splice enclosure. Select the appropriate splice enclosure type based on the number of splices called for in the plans. All end-caps feature two express ports for uncut backbone feeder cables. The enclosure end-cap shall be capable of accepting additional cables without removal of the sheath retention or strength-member-clamping hardware on previously installed cables or disturbing existing splices. The optical fiber splice enclosure shall provide a clamping mechanism to prevent pistoning of the central member or strength members and to prevent cable sheath slip or pullout. The splice enclosure shall have appropriate hardware and installation procedures to facilitate the bonding and grounding of metal components in the enclosure and the armored cable sheath. The cable bonding hardware shall be able to accommodate a copper conductor equal to or larger than 6 AWG.

Comply with the Telcordia Technologies' GR 711 CORE standard and all applicable NEC requirements.

Contain all optical fiber splices within a splice enclosure. Ensure that the enclosures provide storage for fiber splices, nonspliced fiber, and buffer tubes. Ensure enclosures allow sufficient space to prevent microbending of buffer tubes when coiled.

Ensure that the splice enclosure maintains the mechanical and environmental integrity of the fiber optic cable, encases the sheath opening in the cable, and organizes and stores optical fiber. Ensure all hinges and latching devices are

stainless steel or of a non-corrosive material designed for harsh environments. Ensure that the enclosure is airtight and prevents water intrusion. Ensure that splice enclosures allow re-entry and are hermetically sealed to protect internal components from environmental hazards and foreign material such as moisture, dust, insects, and UV light.

Section 3.5.2.1., "Cabinet," is voided and replaced by the following:

3.5.2.1. Cabinet. Furnish and install factory preterminated simplex connector patch panel modules with integrated pigtail cable in a protective housing at locations called for in the plans to accommodate the cables being terminated at that point. Furnish patch panel housing with an epoxy fill material that is environmentally and temperature stable to permanently secure the connectors and the cable inside the housing to protect the fiber optic components from vibration and shock. Provide housing with strain relief boot around the exiting pigtail cable to provide bend radius protection and short term retention of at least 200 lbf. Provide housing with integrated mounting notches. Provide patch panel with ST connectors and dust caps installed by the manufacturer. Document the designation of each connector on labels and charts. Place charts in the cabinet in a heavy plastic envelope approved by the Engineer.

Section 3.5.2.2., "Building," The third paragraph is supplemented by the following:

Ensure each such housing dimension is 9 in. x 17 in. x 11 in. (h x w x l).

Section 3.5.4., "Jumpers," The third paragraph is voided and replaced by the following:

Provide each cabinet with eight, 1 ft. each, singlemode fiber jumpers with ST connectors for testing purposes. After test completion, the 1 ft. jumpers will remain property of the Department.