

## **1. GENERAL**

### **1.1 Scope**

This specification covers a surface nonmetallic raceway system used for branch circuit wiring and/or data network, voice, video, and other low-voltage cabling. The nonmetallic raceway system shall consist of raceway, appropriate fittings, and accessories to complete installation per electrical drawings.

### **1.2 Classifications and Use.**

Surface nonmetallic raceway is to be utilized in dry interior locations only as Covered in Article 388 of the National Electrical Code (2002), as adopted by the National Fire Protection Association and as approved by the American National Standards Institute. The Panduit T70 Raceway System is listed by Underwriter's Laboratories UL5A under File No. E95425 (raceway) and E116129 (fittings) and by Canadian Standards Association C22.2 No. 62.1-03, 600VAC File No. 086285-C-000.

### **1.3 Submittals**

#### ***1.3.1 Shop Drawings***

Submit drawings for approval showing the complete layout of all products that make up the complete system for each floor prior to installations with device type (power and data), locations, and circuits identified.

#### ***1.3.2 As Built Drawings***

If variations from the approved shop drawings occur during the installation of the system, final, as built drawings, shall be submitted for each floor that has been altered.

## **2. PRODUCT**

### **2.1 Manufacturer**

The surface nonmetallic raceway system specified herein for branch circuit wiring and/or data network, voice, video, and other low-voltage cabling shall be the T-70 System as manufactured by the Panduit Corporation. Systems of other manufacturers may be considered equal, if, in the opinion, and the written approval of the engineer, they meet all the performance standards specified herein.

### **2.2 Materials**

The raceway and all system components must be UL Listed and exhibit nonflammable self extinguishing characteristics, tested to comparable specifications of UL94V-0. The raceway base, cover, and divider shall be available in 8' and 10' lengths.

#### ***2.2.1 Raceway***

The raceway shall be a two-piece design with a base and snap-on cover. The raceway shall maintain complete separation of the power and data channels. Total width shall be 4.07" by 1.77" deep with an approximate wall thickness of 0.10".

The base (T70B) shall have a 70mm opening, its own 70mm cover and features for mounting device brackets, hanging boxes, wire retainers and snap on faceplates. Divider walls, which snap onto the base to form additional wiring channels, must be available. The base shall be manufactured of rigid PVC compound. The base shall have a smooth texture, and be available in three colors, off-white, electrical ivory, and white.

The cover (T70C) shall have flanges for snapping onto the base. The cover shall be manufactured of a rigid PVC compound. The cover shall be available in three colors, off-white, electrical ivory, and white. The cover shall match the finish and the color of the base.

The divider wall (T70DW) shall have flanges which snap onto the T-70 base. The divider shall be manufactured of a rigid PVC compound. The divider shall have a smooth texture and be light gray in color.

#### **2.2.2 Fittings**

A full complement of fittings (T-70 series) must be available including but not limited to flat, internal, and external elbows, tees with inserts to separate power and data cabling, entrance fittings, cover couplers, base couplers, and end caps. A transition fitting shall be available to adapt to Panduit LDP10, LDP5 and LDP3 series raceways. The fittings shall provide a means for connecting to the raceway base and shall be capable of maintaining a 1" minimum cable bend radius. The fittings shall be manufactured from a rigid PVC (or ABS/PC) compound. The fittings shall have a matte texture and be available in three colors, off-white, electrical ivory, and white, to match the base and cover. They shall overlap the cover and base to hide uneven cuts. All fittings shall be supplied with a base where applicable to eliminate mitering.

#### **2.2.3 Accessories**

Device brackets and hanging boxes shall be available for mounting standard devices in-line within the raceway. An offset two piece termination box shall be available for positioning power devices adjacent to inline data termination's. Faceplates may be a Pan-Way Snap-On faceplate to match and fit flush with the device bracket, or any NEMA standard 70mm faceplate. Data faceplates may accommodate up to 6 jacks and shall be modular in design to accept UTP, Coax, ST, SC, and Fiber-Jack type of connectors. They shall be available in off-white, electrical ivory, and white to match the raceway base and cover.

### **3. Execution**

#### **3.1 Installation**

**3.1.1** Prior to and during installation, refer to system layout drawing containing all elements of the system.

**3.1.2** Work shall include furnishing all raceway and appropriate fittings and device plates to install a nonmetallic surface raceway system as indicated in the electrical drawings and in the specification. Installer shall comply with detailed manufacturer's instruction sheets, which accompany system components, as well as system instruction sheets.