In industrial establishments where the conditions of maintenance and supervision ensure that only qualified persons service the installation, flexible cords and flexible cables shall be permitted to be installed in aboveground raceways that are no longer than 15 m (50 ft) to protect the flexible cord or flexible cable from physical damage. Where more than three current-carrying conductors are installed within the raceway, the ampacity shall be adjusted in accordance with Table 400.5(A)(3).

A variety of bushings and fittings, both insulated and noninsulated, are available for protecting flexible cords and flexible cables. Some bushings or fittings include strain-relief fittings as required in 400.14. Many insulating bushings are listed in the following product categories:

1. Conduit fittings (bushings and fittings for use on the ends of conduit in boxes and gutters)
2. Insulating devices and materials
3. Outlet bushings and fittings (for use on the ends of conduit, electrical metallic tubing, or armored cable where a change to open wiring is made)

Part II. Construction Specifications

400.20 Labels. Flexible cords shall be examined and tested at the factory and labeled before shipment.

400.21 Construction.

(A) Conductors. The individual conductors of a flexible cord or flexible cable shall have copper flexible stranding and shall not be smaller than the sizes specified in Table 400.4.

(B) Nominal Insulation Thickness. The nominal thickness of insulation for conductors of flexible cords and flexible cables shall not be less than specified in Table 400.4.

400.22 Grounded-Conductor Identification. One conductor of flexible cords that is intended to be used as a grounded circuit conductor shall have a continuous marker that readily distinguishes it from the other conductor or conductors. The identification shall consist of one of the methods indicated in 400.22(A) through (F).

(A) Colored Braid. A braid finished to show a white or gray color and the braid on the other conductor or conductors finished to show a readily distinguishable solid color or colors.

(B) Tracer in Braid. A tracer in a braid of any color contrasting with that of the braid and no tracer in the braid of the other conductor or conductors. No tracer shall be used in the braid of any conductor of a flexible cord that contains a conductor having a braid finished to show white or gray.

Exception: In the case of Types C and PD and cords having the braids on the individual conductors finished to show white or gray. In such cords, the identifying marker shall be permitted to consist of the solid white or gray finish on one conductor, provided there is a colored tracer in the braid of each other conductor.

(C) Colored Insulation. A white or gray insulation on one conductor and insulation of a readily distinguishable color or colors on the other conductor or conductors for cords having no braids on the individual conductors.

For jacketed cords furnished with appliances, one conductor having its insulation colored light blue, with the other conductors having their insulation of a readily distinguishable color other than white or gray.

Exception: Cords that have insulation on the individual conductors integral with the jacket.

The insulation shall be permitted to be covered with an outer finish to provide the desired color.

(D) Colored Separator. A white or gray separator on one conductor and a separator of a readily distinguishable solid color on the other conductor or conductors of cords having insulation on the individual conductors integral with the jacket.

Grounded conductors in flexible cords and flexible cables are identified with a white- or gray-colored braid, a white- or gray-colored tracer in the braid, white- or gray-colored insulation, or a white- or gray-colored separator. In existing installations where a gray-colored braid, tracer, or conductor insulation is encountered, caution should be exercised because gray could also signify ungrounded conductors.

(E) Tinned Conductors. One conductor having the individual strands tinned and the other conductor or conductors having the individual strands untinned for cords having insulation on the individual conductors integral with the jacket.

(F) Surface Marking. One or more ridges, grooves, or white stripes located on the exterior of the cord so as to identify one conductor for cords having insulation on the individual conductors integral with the jacket.

One method of surface marking is to identify the grounded conductor in a cord where the conductor insulation is part of the molded jacket and is not separable. A white stripe on the cord exterior serves to identify the segment of the cord that contains the grounded conductor. An example of a type of cord with these characteristics is zip cord, which is commonly used for floor lamps and table lamps. It is important that the grounded conductor be easily identified where zip cord is used for wiring lampholders, because the *NEC* requires the grounded conductor to be connected to the device terminal that connects to the screw shell of the lampholder and to the terminal connected to the larger blade (prong) of a polarized two-wire attachment cap.

400.23 Equipment Grounding Conductor Identification. A conductor intended to be used as an equipment grounding