

- (6) Listed liquidtight flexible metal conduit meeting all the following conditions:
 - a. The conduit is terminated in listed fittings.
 - b. For metric designators 12 through 16 (trade sizes $\frac{3}{8}$ through $\frac{1}{2}$), the circuit conductors contained in the conduit are protected by overcurrent devices rated at 20 amperes or less.
 - c. For metric designators 21 through 35 (trade sizes $\frac{3}{4}$ through $1\frac{1}{4}$), the circuit conductors contained in the conduit are protected by overcurrent devices rated not more than 60 amperes and there is no flexible metal conduit, flexible metallic tubing, or liquidtight flexible metal conduit in metric designators 12 through 16 (trade sizes $\frac{3}{8}$ through $\frac{1}{2}$) in the effective ground-fault current path.
 - d. The combined length of flexible metal conduit, flexible metallic tubing, and liquidtight flexible metal conduit in the same effective ground-fault current path does not exceed 1.8 m (6 ft).
 - e. If flexibility is necessary to minimize the transmission of vibration from equipment or to provide flexibility for equipment that requires movement after installation, a wire-type equipment grounding conductor or a bonding jumper in accordance with 250.102(E)(2) shall be installed.
 - f. If liquidtight flexible metal conduit contains a stainless steel core, a wire-type equipment grounding conductor or a bonding jumper in accordance with 250.102(E)(2) shall be installed.
 - (7) Flexible metallic tubing if the tubing is terminated in listed fittings and meeting the following conditions:
 - a. The circuit conductors contained in the tubing are protected by overcurrent devices rated at 20 amperes or less.
 - b. The combined length of flexible metal conduit, flexible metallic tubing, and liquidtight flexible metal conduit in the same effective ground-fault current path does not exceed 1.8 m (6 ft).
 - (8) Armor of Type AC cable as provided in 320.108.
 - (9) The copper sheath of mineral-insulated, metal-sheathed cable Type MI.
 - (10) Type MC cable that provides an effective ground-fault current path in accordance with one or more of the following:
 - a. It contains an insulated or uninsulated equipment grounding conductor in compliance with 250.118(1).
 - b. The combined metallic sheath and uninsulated equipment grounding/bonding conductor of interlocked metal tape-type MC cable that is listed and identified as an equipment grounding conductor
 - c. The metallic sheath or the combined metallic sheath and equipment grounding conductors of the smooth or corrugated tube-type MC cable that is listed and identified as an equipment grounding conductor
 - (11) Cable trays as permitted in 392.10 and 392.60.
 - (12) Cablebus framework as permitted in 370.60(1).
 - (13) Other listed electrically continuous metal raceways and listed auxiliary gutters.
 - (14) Surface metal raceways listed for grounding.
- Informational Note: See Article 100 for a definition of *effective ground-fault current path*.
- (B) Not Permitted.** The following shall not be used as equipment grounding conductors.
- (1) Grounding electrode conductors

Exception: A wire-type equipment grounding conductor installed in compliance with 250.6(A) and the applicable requirements for both the equipment grounding conductor and the grounding electrode conductor in Parts II, III, and VI of this article shall be permitted to serve as both an equipment grounding conductor and a grounding electrode conductor.

Equipment grounding conductors (EGCs) and grounding electrode conductors (GECs) have specific functions. GECs are required to be a wire- or busbar-type conductor in accordance with 250.62, whereas EGCs are permitted to be any of the types listed in 250.118. This exception permits a wire-type conductor to be used for both purposes if it satisfies all applicable requirements for both the EGC and the GEC and it does not carry current during normal operating conditions.
 - (2) Structural metal frame of a building or structure
- **Δ 250.119 Identification of Wire-Type Equipment Grounding Conductors.**
- (A) General.** Unless required elsewhere in this *Code*, equipment grounding conductors shall be permitted to be bare, covered, or insulated. Individually covered or insulated equipment grounding conductors of the wire type shall have a continuous outer finish that is either green or green with one or more yellow stripes except as permitted in this section. Conductors with insulation or individual covering that is green, green with one or more yellow stripes, or otherwise identified as permitted by this section shall not be used for ungrounded or grounded circuit conductors.
- Exception No. 1: Power-limited Class 2 or Class 3 cables, power-limited fire alarm cables, or communications cables containing only circuits operating at less than 50 volts ac or 60 volts dc if connected to equipment not required to be grounded shall be permitted to use a conductor with green insulation or green with one or more yellow stripes for other than equipment grounding purposes.*
- In general, most limited-energy ac systems are not required to be grounded per 250.20(A). Similarly, 250.162 does not require grounding of dc systems operating at 60 volts or less. Per 250.112 (1), if the ac or dc limited-energy system is not required to be grounded, the equipment associated with circuits supplied from such systems is not required to be connected to an equipment grounding conductor.