

- (1) Class I, Zone 1 or Zone 1; Class I, Zone 2 or Zone 2 (as applicable)
- (2) Applicable gas classification group(s) in accordance with Table 505.9(C)(1)
- (3) Temperature classification in accordance with 505.9(D)

TABLE 505.9(C)(1) Material Groups

Material Group	Comment
IIC	See 505.6(A)
IIB	See 505.6(B)
IIA	See 505.6(C)

Δ (2) Zone Equipment. Equipment meeting one or more of the protection techniques described in 505.8 shall be marked with all of the following in the order shown:

- (1) Class I shall be an optional marking. If it is included in the equipment marking, the Class I marking shall precede the zone marking.
- (2) Zone in accordance with Chapter 9, Table 13.
- (3) Symbol “AEx”.
- (4) Protection technique(s) in accordance with Chapter 9, Table 13.
- (5) Applicable material group in accordance with Table 505.9(C)(1) or a specific gas or vapor.
- (6) Temperature classification in accordance with 505.9(D).
- (7) Equipment protection level (EPL).

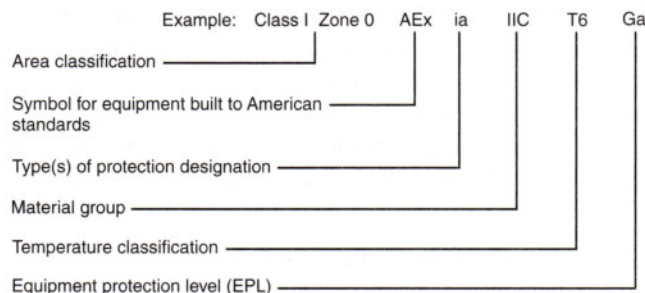
The symbol AEx identifies the equipment as meeting American national standards. In European Union countries, the symbol EEx was used historically but no longer appears in current European standards. Only equipment marked AEx has been evaluated for use in electrical systems and hazardous locations covered under the NEC. The equipment protection level (EPL) Ga, Gb, or Gc is required as part of the equipment markings. The EPL indicates the level of protection provided by the equipment and is correlated to the Zone in which the equipment will be installed and operated.

Exception No. 1: Associated apparatus NOT suitable for installation in a hazardous (classified) location shall be required to be marked only with 505.9(C)(2)(3), (C)(2)(4), and (C)(2)(5), but BOTH the symbol AEx (3) and the symbol for the type of protection (4) shall be enclosed within the same square brackets, for example, [AEx ia Ga] IIC.

Exception No. 2: Simple apparatus as defined in Article 100 shall not be required to have a marked operating temperature or temperature class.

Exception No. 3: Fittings for the termination of cables shall not be required to have a marked operating temperature or temperature class.

Informational Note No. 1: See Informational Note Figure 505.9(C)(2), for an explanation of the marking that is required. An example of the required marking for intrinsically safe apparatus

**INFORMATIONAL NOTE FIGURE 505.9(C)(2) Zone Equipment Marking.**

for installation in Zone 0 is “Class I, Zone 0, AEx ia IIC T6 Ga” or “Zone 0, AEx, ia, IIC T6 Gb.”

Informational Note No. 2: An example of the required marking for intrinsically safe associated apparatus mounted in a flameproof enclosure for installation in Zone 1 is “Class I, Zone 1 AEx db[ia] IIC T4 Gb” or “Zone 1, AEx, db[ia Ga] IIC T4 Gb.”

Informational Note No. 3: An example of the required marking for intrinsically safe associated apparatus NOT for installation in a hazardous (classified) location is “[AEx ia Ga] IIC.”

Informational Note No. 4: EPLs are designated as G for gas, or D for dust, and are then followed by a letter (a, b, or c) to give the user a better understanding as to whether the equipment provides (a) a “very high,” (b) a “high,” or (c) an “enhanced” level of protection against ignition of an explosive atmosphere. For example, a Zone 1, AEx db IIC T4 Gb motor (which is suitable by protection concept for application in Zone 1) is marked with an EPL of “Gb” to indicate that it was provided with a high level of protection.

Informational Note No. 5: See ANSI/UL 60079-26, *Explosive Atmospheres — Part 26: Equipment with Equipment Protection Level (EPL) Ga*, for additional information. Equipment installed outside a Zone 0 location and electrically connected to equipment located inside a Zone 0 location might be marked Zone 0/1. The “/” indicates that equipment contains a separation element and can be installed at the boundary between a Zone 0 and a Zone 1 location.

Δ (D) Temperature Classification Marking. The temperature marking shall not exceed the autoignition temperature of the specific gas or vapor to be encountered.

Informational Note No. 1: See ANSI/UL 60079-26, *Explosive Atmospheres — Part 26: Equipment with Equipment Protection Level (EPL) Ga*, for more information. Equipment installed outside a Zone 0 location and electrically connected to equipment located inside a Zone 0 location might be marked Zone 0/1. The “/” indicates that equipment contains a separation element and can be installed at the boundary between a Zone 0 and a Zone 1 location.

Equipment shall be marked to show the operating temperature or temperature class referenced to a 40°C ambient, or at the higher ambient temperature if the equipment is rated and marked for an ambient temperature of greater than 40°C. The temperature class, if provided, shall be indicated using the temperature class (T code) shown in Table 505.9(D).