Mild (Carbon Steel) and Low Alloy Classification Designators for Flux Cored Wires

Mandatory Classification Designators

Both C.S. and L.A.	C.S. only	L.A. only

Designates an electrode for both C.S & L.A flux cored wires.

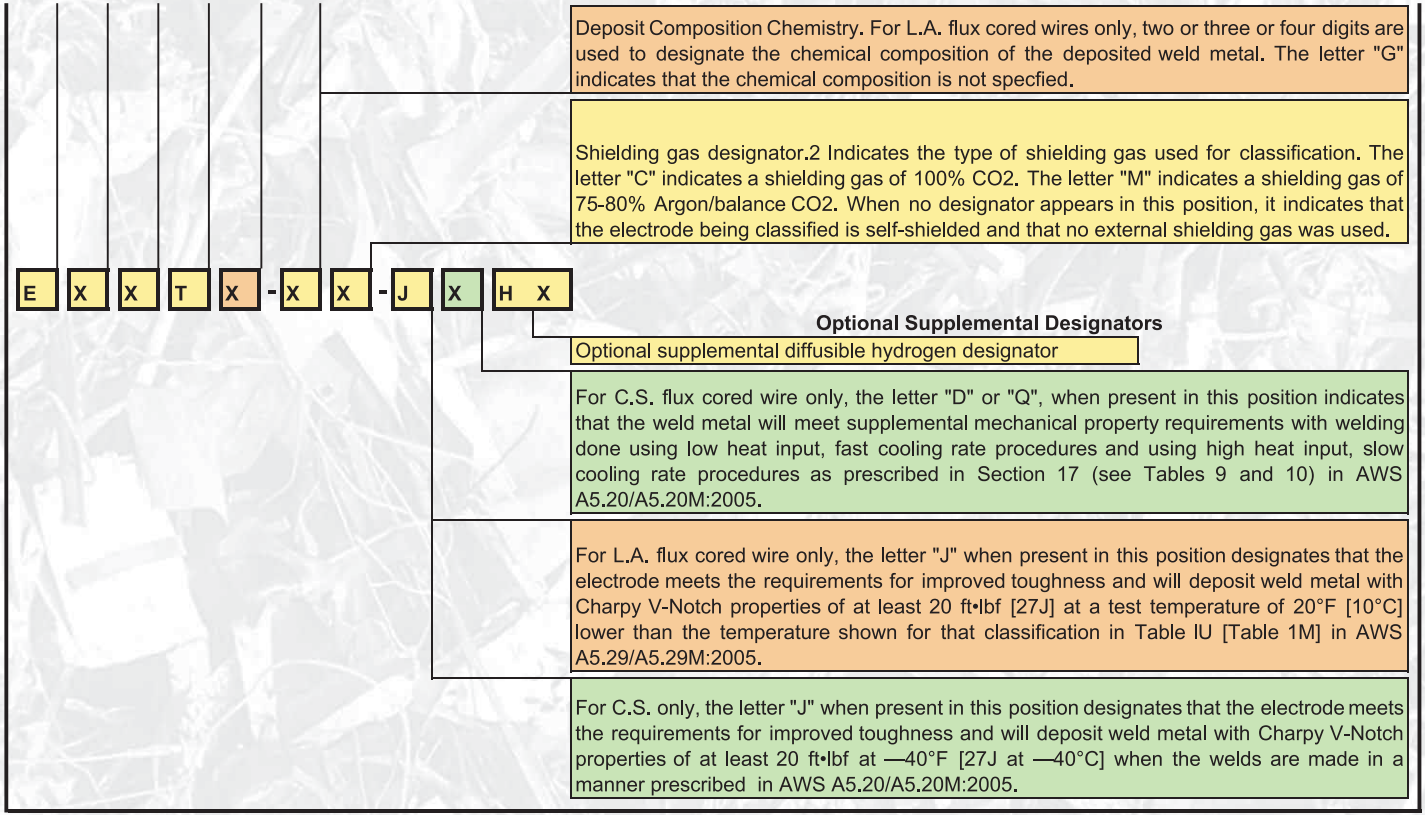
Tensile strength designator. For both C.S & L.A flux cored wires, this designator indicates the minimum tensile strength (when multiplied by 10 ksi) of the weld metal when the weld is made in the manner prescribed by its specification.

Positionality designator. This designator is either "0" or "1." "0" is for flat and horizontal positions only. "1" is for all positions (flat, horizontal, vertical with downward progression and/or vertical with upward progression and overhead).

This designator identifies the electrode as a flux cored electrode.

Usability designator. For L.A. flux cored wire, this designator is the number 1, 4, 5, 6, 7, 8, or 11 or the letter "G." The number refers to the usability of the electrode. The letter "G" indicates that the polarity and general operating characteristics are not specified. Deposit composition designator. Two, three or four digits are used to designate the chemical composition of the deposited weld metal. The letter "G" indicates that the chemical composition is not specified.

Usability designator. For C.S. flux cored wire, this designator is some number from 1 through 14 or the letter "G" (or "GS"). This designator refers to the usability of the electrode with requirements for polarity and general operating characteristics. The letter "G" indicates that the polarity and general operating characteristics are not specified. An "S" is used after the "G" to indicate that the electrode is suitable only for single pass welding.


E X X T X - X X - J X H X
Deposit Composition Chemistry. For L.A. flux cored wires only, two or three or four digits are used to designate the chemical composition of the deposited weld metal. The letter "G" indicates that the chemical composition is not specfied.
Shielding gas designator.2 Indicates the type of shielding gas used for classification. The letter "C" indicates a shielding gas of 100% CO2. The letter "M" indicates a shielding gas of 75-80% Argon/balance CO2. When no designator appears in this position, it indicates that the electrode being classified is self-shielded and that no external shielding gas was used.
Optional Supplemental Designators
Optional supplemental diffusible hydrogen designator
For C.S. flux cored wire only, the letter "D" or "Q", when present in this position indicates that the weld metal will meet supplemental mechanical property requirements with welding done using low heat input, fast cooling rate procedures and using high heat input, slow cooling rate procedures as prescribed in Section 17 (see Tables 9 and 10) in AWS A5.20/A5.20M:2005.
For L.A. flux cored wire only, the letter "J" when present in this position designates that the electrode meets the requirements for improved toughness and will deposit weld metal with Charpy V-Notch properties of at least 20 ft•lbf [27J] at a test temperature of 20°F [10°C] lower than the temperature shown for that classification in Table lU [Table 1M] in AWS A5.29/A5.29M:2005.
For C.S. only, the letter "J" when present in this position designates that the electrode meets the requirements for improved toughness and will deposit weld metal with Charpy V-Notch properties of at least 20 ft•lbf at —40°F [27J at —40°C] when the welds are made in a manner prescribed in AWS A5.20/A5.20M:2005.