

Numbers on the rod. What do they mean?

The numbers on a welding rod typically indicate its strength and composition. The numbering system can vary depending on the type of welding rod being used. For instance, in the American Welding Society (AWS) system, the first two or three digits typically represent the minimum tensile strength of the rod in thousands of pounds per square inch (psi). The next number or letter provides information about the welding position and the type of flux coating on the rod. Additionally, some rods have a suffix letter that indicates the type of flux coating or certain characteristics of the rod.

The 7018 welding rod is a popular, all-position, low-hydrogen electrode used for welding carbon and low-alloy steels. In the AWS classification, "70" signifies a tensile strength of 70,000 pounds per square inch or 70 ksi. The "1" indicates that it can be used in all positions, and the "8" indicates the type of flux coating and current characteristics. The 7018 rod produces strong welds with excellent ductility and impact properties, making it suitable for a wide range of applications, including structural steel, machinery, and heavy equipment. It's commonly used in industries such as construction, shipbuilding, and pipeline welding, among others.

The 70S-6 welding wire is a type of solid wire electrode used with the Gas Tungsten (GTAW) & Gas Metal Arc Welding (GMAW) processes, also known as TIG & MIG welding. The "70" in 70S-6 indicates the minimum tensile strength of the weld metal, which is 70,000 pounds per square inch. The "S" stands for solid wire, and the "6" indicates the level of deoxidizers and cleaning agents present in the wire. 70S-6 is commonly used for welding mild and low-alloy steels in various thicknesses and positions. It provides excellent weld bead characteristics and is suitable for general fabrication, automotive, and structural steel applications.

SMAW Electrode



Diagram by weldguru.com



Carbon Steel Electrode Numbers

E 7018-1 H4 R

- Electrode
- Tensile in ksi
- Position
- Type of coating and current
- Meets lower temperature impact requirements
- Hydrogen: H4 = less than 4 ml/100 g, H8 = Less than 8 ml/100g
- Meets requirements of absorbed moisture test

Position

- 1 All Positions
- 2 Flat and Horizontal
- 3 Flat only
- 4 Flat, Horizontal, Vertical down and Overhead

Diagram by weldguru.com

