

Inweld 71T-1

Alloy E71T-1
 AWS A5.20 E71T-1
 ASME SFA 5.20
 All Position



Description and Applications:

Inweld E71T-1, features lower spatter and fume emissions than conventional products in this class. This electrode is intended for single and multiple pass welding of carbon and certain low alloy steels in all positions, particularly in the overhead and vertical up positions. Inweld E71T-1 is used where a minimum tensile strength of 70,000 psi is required in the deposited weld metal.

Inweld E71T-1 electrodes are classified with CO₂ shielding gas by this specification. However, gas mixtures of argon-CO₂ are also used to improve usability, especially for out-of position applications. Decreasing amounts of CO₂ in the argon-CO₂ mixture will increase manganese and silicon in the deposit and may improve the impact properties. These electrodes are designed for single and multiple pass welding. The larger diameters (usually 5/64" (2.0 mm) and larger) are used for welding in the flat position and for horizontal fillets. The smaller diameters (usually 1/16" (1.6 mm) and smaller) are used for welding in all positions. E71T-1 is characterized by a spray transfer, low spatter loss, flat to slightly convex bead configuration, and a moderate volume of slag which completely covers the weld bead. E71T-1 electrodes have a rutile base slag.

Incomparable weldability in all positions makes Inweld E71T-1 a good choice for general plate fabrication, structural steel welding, shipbuilding, steel fabrication and any instance where lower fume and spatter emissions are required. The reduced spatter is especially attractive in those operations where painting is performed immediately after welding.

Chemical Composition of Inweld E71T-1

Fe	C	Mn	P	S	Si
Balance	0.02	1.16	0.01	0.015	0.41

Single values are maximum unless otherwise specified.

Tensile Strength (psi): 86,200
 Yield Strength (psi): 77,700
 Elongation: 27%
 V-notch impact: 20 ft-lb at 0° F (27 J at - 18° C)



Recommended Welding Parameters:

GMAW (DCRP – Electrode +)
 100% CO₂ or a 75 – 25%
 Argon / CO₂ mixture

*Use low range for iron or nickel-based alloy's, middle range for bronze alloys and high range for copper.