Inweld 110S-1

AWS A5.28 ER110S-1

Chemical Composition of Inweld 110S-1

Fe	C	Cr	Mo	Mn	Si	P	S	V	Cu	Ti	Zr
Balance	0.09	0.50	0.25-0.55	1.40-1.80	0.20-0.55	0.01	0.01	0.04	0.25	0.10	0.10

Single values are maximum unless otherwise specified.

Description and Applications

Inweld 110S-1 filler metal deposits high-strength, very tough weld metal for critical applications. Originally developed for welding HY80 & HY100 steels for military applications, it is also used for a variety of structural applications where tensile strength requirements exceed 110,000 psi, and excellent toughness is required to temperatures as low as -60°F (-51°C). Mechanical properties obtained from weld deposits made with electrodes of this classification will vary depending on the heat input used.

Typical Weld Metal Properties

	AWS Spec
Tensile Strength:	110,000 psi
Yield Strength:	95,000 psi
Elongation:	15%

Recommended Parameters

GMAW (DCEP - Electrode+) 100 % CO_2, or a 75-25% Argon/CO_2 Mixture For Solid Wire, 98 % Argon / 2% CO_2 Mixture For Spray Transfer

Wire Diameter	Voltage	Amperage	Wire Feed IPM
0.035”	22-25	100-140	320-510
0.045”	23-26	120-150	170-550
0.035” (Spray)	28-32	160-200	320-510
0.045” (Spray)	30-34	280-220	170-550

GTAW (DCSP) 2% Thoriated Tungsten Electrode Negative

Tungsten Dia.	Filler Wire Size	Amperage	Argon (CFH)
1/16”	1/16”	100-160	20
3/32”	3/32”	120-250	20
1/8”	1/8”	150-300	25