Inweld 80S-D2

AWS A5.28 ER80S-D2

Chemical Composition of Inweld 80S-D2

C	Mn	Si	P	S	Ni	Cr	Mo	Cu	Other	Fe
0.07-0.12	1.60-2.10	0.50-0.80	0.025	0.025	0.15	---	0.40-0.60	0.50	0.50	Balance

Single values are maximum unless otherwise specified.

Description and Applications

The 80S-D2 classification has the same chemical requirements as the 7E70S-1B classification. Filler metal of this classification contains molybdenum for increased strength and a high level of deoxidizers (Mn & Si) to control porosity when welding with CO_2 as the shielding gas. This material will give a radiographic quality weld with excellent bead appearance in both ordinary and difficult-to-weld carbon and low-alloy steels. It also exibits excellent out-of-position welding characteristics with the short circuiting and pulsed arc process.

The combination of weld soundness and strength makes this filler metal classification suitable for single and multiple-pass welding of a variety of carbon and low-alloy, higher strength steels in both the as-welded and postweld heat-treated conditions. The chemical classifications differ from those of the "-D2" type electrodes in AWS A5.5.

Procedure

Typical Weld Metal Properties

	AWS Spec (ksi)
Tensile Strength:	80,000
Yield Strength:	68,000
Elongation:	17%

Recommended Parameters

Wire Diameter	Voltage	Amperage

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