



Carbon Steel BARE WIRE DATA SHEET

exocor 70S2

DESCRIPTION

Exocor 70S2 is primarily used for single-pass welding of killed, semi-killed, and rimmed steels, but may be used for some multi-pass applications. Because of added deoxidants this filler metal can be used for welding steels that have a rusty, dirty or mill scaled surface. Exocor 70S2 is used to produce high quality, high toughness welds with the GTAW process. This filler metal is also well suited for use in single side, melt through welding without a protective root shielding gas on the backside of the joint.

Typical specifications for the steels welded with Exocor 70S2 are ASTM A36, A285-C, A515-55, and A516-70, which have UNS numbers K02600, K02801, K02001, and K02700 respectively.

TYPICAL CHEMICAL VALUES

C	Cr	Ni	Mo	Mn	Si	P	V	S	Ti	Cu	Zr	Al
0.04	0.15	0.15	0.15	1.1	0.5	0.01	0.03	0.01	0.1	0.50	0.05	0.1

WELDING PARAMETERS

PROCESS	SIZE	VOLTS	AMPS	SPEED OF WELDING / GAS FLOW	SHIELDING GAS / FLUX
GMAW	.035	28 - 32	165 - 200	30 - 50 CFH	98/99% Ar + 2/1% O ₂
	.045	30 - 34	180 - 220	30 - 50 CFH	98/99% Ar + 2/1% O ₂
GTAW	.093	Direct Current; Electrode –		30 - 40 CFH	100% Ar
	.125	Direct Current; Electrode –		30 - 40 CFH	100% Ar

TYPICAL MECHANICAL PROPERTIES

Tensile Strength:	82,000 PSI	566 MPA
Yield Strength:	68,000 PSI	469 MPA
Elongation:	28%	

CLASSIFICATION

Wire chemistry has been optimized for best performance and conforms to **AWS/SFA 5.18, Class ER70S-2**.