DURAMAX®
Inspiring the future generations of welders

Product
Data Sheet

CARBON STEEL WELDING WIRE DM70S-2

Classification: **ER70S-2** **AWS A5.18 / ASME SFA A5.18**

Description, Characteristics & Applications:

DuraMax DM70S-2 is a triple deoxidized bare wire for GMAW and GTAW welding. It is a premium wire for welding on all grades of mild and carbon steels, producing quality welds with minimal porosity. It is triple deoxidized with small amounts of Zirconium, Titanium and Aluminum (Zr, Ti, Al), making it an excellent choice for welding over rust and mill scale. Typical applications include pipes and offshore drilling rigs, structural steel, carbon steel plate, fittings, castings, and forgings.

Typical Chemical Composition (%)

C	Mn	Si	P	S	Ni	Cr	Mo	V	Cu	Ti	Zr	Al
0.07 max	0.90-1.40	0.40-0.70	0.025 max	0.035 max	0.15 max	0.15 max	0.15 max	0.03 max	0.50 max	0.05-0.15	0.02-0.12	0.05-0.15

Typical Mechanical Properties as Welded

Tensile Strength MPa	Yield Strength MPa	Elongation (%)	Charpy V-Notch Impact
480 min	400 min	22 min	Minus -30 C: >= 27 (J)

Sizes Available and Recommended Welding Parameters

Process	Diameter	Amperage	Voltage	Gas/Flux
GTAW	.035	50 - 70	10 - 12	100% Argon
	.045	70 - 100	10 - 12	100% Argon
	1/16	100 - 125	12 - 15	100% Argon
	3/32	125 - 175	15 - 20	100% Argon
	1/8	175 - 250	15 - 20	100% Argon
	5/32	175 - 250	15 - 20	100% Argon
GMAW Short Arc	.035	90 - 160	14 - 20	100% CO2 or 75% Ar + 25% CO2
	.045	120 - 180	16 - 22	80% Ar + 20% CO2
	1/16	160 - 200	16 - 22	80% Ar + 20% CO2
GMAW Spray Transfer	.035	165 - 200	25 - 28	98% Ar + 2% O2
	.045	180 - 220	25 - 30	75% Ar + 25% CO2
	1/16	230 - 260	26 - 36	75% Ar + 25% CO2

Notes Weld parameters are dependent upon the actual weld process being utilized.

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