

CARBON STEEL WELDING WIRE DM70S-6

Classification:

ER70S-6

AWS A5.18 / ASME SFA A5.18

Description, Characteristics & Applications:

DuraMax DM70S-6 is a deoxidized bare wire for GMAW and GTAW welding. DuraMax DM70S-6 is a mild steel welding wire that contains higher levels of manganese and silicon than other standard grades of wire. It produces a high quality weld when used on dirty, oily or rusty steels. The higher silicon content increases the fluidity of the weld pool, which gives a smoother bead appearance and results in minimal post weld grinding. Typical applications include general shop application and ornamental iron fabrication, construction, tanks, and steel castings.

Typical Chemical Composition (%)

C	Mn	Si	P	S	Ni	Cr	Mo	V	Cu	Ti	Zr
0.06 to 0.15	1.40-1.85	0.80-1.15	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

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	100 - 140	22 - 25	100% CO ₂ or 75% Ar + 25% CO ₂
	.045	120 - 150	23 - 26	80% Ar + 20% CO ₂
	1/16	160 - 200	23 - 26	80% Ar + 20% CO ₂
GMAW Spray Transfer	.035	165 - 200	28 - 32	98% Ar + 2% O ₂
	.045	180 - 220	30 - 34	75% Ar + 25% CO ₂
	1/16	230 - 260	30 - 34	75% Ar + 25% CO ₂

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

The above information is to be used as a guideline and is based on the source Product Data Sheet. If additional information is needed please contact (800) 692-5930.