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Inspiring the future generations of welders

Product
Data Sheet

CHROME MOLY WELDING WIRE DM80SB-6

Classification: **ER80S-B6** **AWS A5.28 / ASME SFA 5.28**

Weld Process: Mig (GMAW) & Tig (GTAW)
Alloy: 80S-B6 Class: ER80S-B6 Alloy: DM80SB-6

Application

This type of material contains 4% - 6% chromium and about 0.50% molybdenum. It is used to weld materials of similar composition, usually in the form of pipe or tubing for high temperature service applications. Recommend using preheat and inter-pass temperature of 350º F min. during welding.

AWS Chemical Composition Requirements

C	Mn	Si	P	S	Ni	Cr	Mo	Cu	Other
0.10 max	0.40 - 0.70	0.50 max	0.025 max	0.025 max	0.60 max	4.50 - 6.00	0.45 - 0.65	0.35 max	0.50 max

Deposited Chemical Composition % (Typical)

C	Mn	Si	P	S	Ni	Cr	Mo	Cu
0.07	0.60	0.04	0.015	0.006	0.45	5.25	0.50	0.20

Deposited All Weld Metal Properties % (AW)

Tensile Strength	Yield Strength	Elongation (%)	Hardness	Ferrite WRC (FN)	CVN Impacts (J)	
					@	°F
82,000psi	72,000psi	27%	-------	-------	Not Applicable	

Deposited Mechanical Properties % (SR) (1575ºF 2 hours)

Tensile Strength	Yield Strength	Elongation
78,500psi	60,500psi	32%

Recommended Welding Parameters

Process	Diameter of Wire	Voltage (V)	Amperage (A)	Gas
Tig	.035 inches x 36	10 - 12	50 - 70	100% Argon
	.045 inches x 36	10 - 12	70 - 100	100% Argon
	1/16 inches x 36	12 - 15	100 - 125	100% Argon
	3/32 inches x 36	15 - 20	125 - 175	100% Argon
	1/8 inches x 36	15 - 20	175 - 250	100% Argon
MIG-Sprayer Transfer	.035 inches	28 - 32	165 - 200	98% Argon + 2% Helium
	.045 inches	30 - 34	180 - 220	75% Argon + 25% Co2
	1/16 inches	30 - 34	230 - 260	100% Co2
MIG-Short Arc Transfer	.035 inches	22 - 25	100 - 140	100% Co2
	.045 inches	23 - 26	120 - 150	75% Argon + 25% Co2

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