



PRODUCT

DATA SHEET

Chrome Moly Welding Wire

Weld Process: Mig (GMAW) & Tig (GTAW)

Alloy: 80S-B6 Class: ER80S-B6

Conforms to Certification: AWS A5.28 / ASME SFA 5.28

Alloy: DM80SB-6

AWS Chemical Composition Requirements

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

Deposited Chemical Composition % (Typical)

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

Deposited All Weld Metal Properties % (AW)

Tensile Strength 82,000psi
Yield Strength 72,000psi
Elongation 27%

Deposited Charpy-V-Notch Impact Properties %

Not Applicable

Deposited Mechanical Properties % (SR) (1575°F 2 hours)

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

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 350° F min. during welding.

Recommended Welding Parameters

<u>Process</u>	<u>Diameter of Wire</u>	<u>Voltage (V)</u>	<u>Amperage (A)</u>	<u>Gas</u>
Tig	.035 inches x 36	10 – 12	50 – 70	100% Argon

For additional information please visit our website at Duramax-weld.com or email info@duramax-weld.com



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	.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% Co ₂
	1/16 inches	30 – 34	230 – 260	100% Co ₂
MIG-Short Arc Transfer	.035 inches	22 – 25	100 – 140	100% Co ₂
	.045 inches	23 – 26	120 – 150	75% Argon + 25% Co ₂