



# PRODUCT

## DATA SHEET

### Chrome Moly Welding Wire

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

Alloy: 80S-B8 Class: ER80S-B8

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

Alloy: DM80SB-8

#### AWS Chemical Composition Requirements

C = 0.10 max Ni = 0.50 max  
Mn = 0.40 - 0.70 Cr = 8.00 – 10.50  
Si = 0.50 max Mo = 0.80 – 1.20  
P = 0.025 max Cu = 0.35 max  
S = 0.025 max Other = 0.50 max

#### Deposited Chemical Composition % (Typical)

C = 0.08 P = 0.015 Cr = 9.50  
Mn = 0.55 S = 0.006 Mo = 1.00  
Si = 0.004 Ni = 0.40 Cu = 0.18

#### Deposited All Weld Metal Properties % (AW)

Tensile Strength 84,000psi  
Yield Strength 69,000psi  
Elongation 18%

#### Deposited Charpy-V-Notch Impact Properties %

Not Applicable

#### Deposited Mechanical Properties (S.R.) 1575° F for (2) Hours

Tensile Strength 79,000psi  
Yield Strength 63,500psi  
Elongation 29%

#### Application

This classification contains 8% – 10.5% chromium and about 1% molybdenum. Material is used to weld base material of similar composition, for high temperature service applications. 350° F min preheat, inter-pass are recommended.

#### 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
	.045 inches x 36	10 – 12	70 – 100	100% Argon



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