

## CHROME MOLY WELDING WIRE DM80SB-8

**Classification:** ER80S-B8 AWS A5.28 / ASME SFA 5.28

### 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.

### 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	0.50 max	8.00 - 10.50	0.80 - 1.20	0.35 max	0.50 max

### Deposited Chemical Composition % (Typical)

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

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

Tensile Strength	Yield Strength	Elongation (%)	Hardness	Ferrite WRC (FN)	CVN Impacts (J)	
					@	°F
84,000psi	69,000psi	18%	-----	-----	Not Applicable	

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

Tensile Strength	Yield Strength	Elongation (%)	Hardness	Ferrite WRC (FN)	CVN Impacts (J)	
					@	°F
79,000psi	63,500psi	29%	-----	-----	Not Applicable	

### 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