DURAMAX®
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Product Data Sheet

CHROME MOLY WELDING WIRE DM90S-B3

Classification: ***ER90S-B3*** ***AWS A5.28 / ASME SFA 5.28***

Application

ER90S-B3 is for welding 2¼ chrome, 1 moly steels, pipe material used in the petroleum industry for elevated temperature service.

AWS Chemical Composition Requirements

C	Mn	Si	P	S	Ni	Cr	Mo	Cu	Other
0.07 - 0.12	0.40 - 0.70	0.40 - 0.70	0.025 max	0.025 max	0.20 max	2.30 - 2.70	0.90 - 1.20	0.35 max	0.50 max

Deposited Chemical Composition % (Typical)

C	Mn	Si	P	S	Ni	Cr	Mo	Cu
0.10	0.62	0.48	0.009	0.008	0.06	2.55	1.08	0.12

Deposited All Weld Metal Properties % (AW)

Tensile Strength	Yield Strength	Elongation (%)	Hardness	Ferrite WRC (FN)	CVN Impacts	
					@	°F
94,000psi	80,500psi	19%			80 ft. lbs.	+68ºF

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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