



Low Alloy Steel BARE WIRE DATA SHEET

exocor 80SD2

DESCRIPTION

Exocor 80SD2 is a low alloy manganese/molybdenum based filler metal that provides moderately high strength with adequate low temperature strength, both in the as-welded and stress relieved conditions. It provides good wetting and good tolerance to rust and scale. Careful control of preheat and interpass temperatures (300° F minimum) are essential to avoid cracking.

This filler metal has the same chemistry as classification ER90S-D2. The differences between the 2 classifications are the change in shielding gas and mechanical properties. Using an argon based mix in the GMAW process, results in the higher values required to meet the ER90S-D2 classification.

TYPICAL CHEMICAL VALUES

C	Ni	Mo	Mn	Si	P	S	Cu	TOE
0.07	0.1	0.5	1.7	0.7	0.01	0.01	0.2	0.50

WELDING PARAMETERS

PROCESS	SIZE	VOLTS	AMPS	SPEED OF WELDING / GAS FLOW	SHIELDING GAS / FLUX
GMAW	.035	28 - 32	165 - 200	30 - 50 CFH	CO ₂
	.045	30 - 34	180 - 220	30 - 50 CFH	CO ₂
GTAW	.093	Direct Current; Electrode –		30 - 40 CFH	100% Ar
	.125	Direct Current; Electrode –		30 - 40 CFH	100% Ar

MECHANICAL PROPERTIES

Tensile Strength:	80,000 PSI	550 MPA
Yield Strength:	68,000 PSI	470 MPA
Elongation:	17%	

CLASSIFICATION

Wire chemistry has been optimized for best performance and conforms to **AWS/SFA 5.28, Class ER80S-D2**.