



## Low Alloy Steel BARE WIRE DATA SHEET

# exocor 80SB2

### DESCRIPTION

**Exocor 80SB2** is designed for welding of 1-1/4Cr – ½ Mo steels for elevated temperatures and corrosive service. It can also be used for joining dissimilar combinations of Cr-Mo and carbon steels. Careful control of preheat and interpass temperatures (300° F minimum) are essential to avoid cracking. As this filler metal is classified after postweld heat treatment, special care must be taken when using them in the as-welded condition due to higher strength levels.

### TYPICAL CHEMICAL VALUES

<b>C</b>	<b>Cr</b>	<b>Ni</b>	<b>Mo</b>	<b>Mn</b>	<b>Si</b>	<b>P</b>	<b>S</b>	<b>Cu</b>	<b>TOE</b>
0.09	1.3	0.1	0.55	0.55	0.5	0.01	0.01	0.1	0.50

### WELDING PARAMETERS

<b>PROCESS</b>	<b>SIZE</b>	<b>VOLTS</b>	<b>AMPS</b>	<b>SPEED OF WELDING / GAS FLOW</b>	<b>SHIELDING GAS / FLUX</b>
GMAW	.035	28 - 32	165 - 200	30 - 50 CFH	98/99% Ar + 2/1% O <sub>2</sub>
	.045	30 - 34	180 - 220	30 - 50 CFH	98/99% Ar + 2/1% O <sub>2</sub>
GTAW	.093	Direct Current; Electrode –		30 - 40 CFH	100% Ar
	.125	Direct Current; Electrode –		30 - 40 CFH	100% Ar

### MECHANICAL PROPERTIES

Tensile Strength:	85,000 PSI	590 MPA
Yield Strength:	71,500 PSI	490 MPA
Elongation:	21%	

*NOTE: Mechanical properties shown above reflect the use of a postweld heat treatment of 1150° F for one hour.*

### CLASSIFICATION

Wire chemistry has been optimized for best performance and conforms to **AWS/SFA 5.28, Class ER80S-B2**.