

**MIDALLOY ER80S-B2 / EB2 WELDING WIRE**

**CLASSIFICATION**

- GTAW & GMAW AWS 5.28 Class ER80S-B2 / ASME SFA 5.28 Class ER80S-B2
- SAW AWS 5.23 Class EB2 / ASME SFA 5.23

**DESCRIPTION**

- MIDALLOY ER80S-B2 & EB2 welding wire is a copper-coated wire, used for GMAW, GTAW, and SAW welding.

**APPLICATION**

- MIDALLOY ER80S-B2 welding wire is designed for the gas metal arc welding of 1¼ Cr / ½ Mo steels, which are used for high temperature service.
- Preheating and interpass temperatures of not less than 300°F must be used during welding.

**TYPICAL CHEMISTRY**

C	Mn	Si	Cr	Mo	P	S	Cu
.09	.55	.48	1.35	.55	.012	.006	.15

**NOTE:** Silicon .20 in SAW

**TYPICAL MECHANICAL PROPERTIES**

<b>TENSILE STRENGTH</b> 590 MPA	85,000 PSI
<b>YIELD STRENGTH</b> 490 MPA	71,500 PSI
<b>ELONGATION</b>	21%
<b>IMPACT STRENGTH @ 32°F</b>	60 ft. lbs.

**Note:** Mechanical Properties listed reflect utilization of a post weld heat treatment between 1125°F and 1175°F for one hour.

**RECOMMENDED WELDING PARAMETERS**

PROCESS	DIA. OF WIRE	AMPERAGE	VOLTAGE	GAS/FLUX
<b>GTAW (TIG)</b>	1/16"	50-120	7-13	Ar
	3/32"	120-200	10-16	Ar
	1/8"	150-220	12-18	Ar
<b>GMAW (MIG) SHORT ARC</b>	.035"	90-160	14-20	CO <sub>2</sub>
	.045"	120-200	16-20	CO <sub>2</sub> or 75 Ar / 25 CO <sub>2</sub>
	1/16"	-	-	CO <sub>2</sub> or 75 Ar / 25 CO <sub>2</sub>
<b>GMAW (MIG) SPRAY TRANSFER</b>	.035"	180-230	25-28	98 Ar / 2 O <sub>2</sub>
	.045"	250-350	25-30	75 Ar / 25 CO <sub>2</sub>
	1/16"	280-400	26-36	75 Ar / 25 CO <sub>2</sub>
<b>SUBMERGED ARC</b>	3/32"	250-400	28-32	UV420TTR
	1/8"	400-600	30-34	UV420TTR

**STANDARD PACKAGE**

- TIG 50 lb. carton
- MIG 33 lb. spool
- SUB-ARC 55 lb. coil

*The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. We reserve the right to modify or improve the designs or specifications of such products at any time without notice.*

Office and Corporate Warehouse  
 630 Axminister Drive  
 Fenton, MO 63026 • 636-349-6000 • 800-776-3300  
 Fax 636-349-2240

