

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 bare 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

TENSILE STRENGTH 590 MPA	85,000 PSI
YIELD STRENGTH 490 MPA	71,500 PSI
ELONGATION	21%
IMPACT STRENGTH @ 32°F	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
GTAW (TIG)	1/16"	50-120	7-13	Ar
	3/32"	120-200	10-16	Ar
	1/8"	150-220	12-18	Ar
GMAW (MIG) SHORT ARC	.035"	90-160	14-20	CO ₂
	.045"	120-200	16-20	CO ₂ or 75 Ar / 25 CO ₂
	1/16"	-	-	CO ₂ or 75 Ar / 25 CO ₂
GMAW (MIG) SPRAY TRANSFER	.035"	180-230	25-28	98 Ar / 2 O ₂
	.045"	250-350	25-30	75 Ar / 25 CO ₂
	1/16"	280-400	26-36	75 Ar / 25 CO ₂
SUBMERGED ARC	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

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