

## MIDALLOY ER120S-1 WELDING WIRE

### CLASSIFICATION

- AWS 5.28 Class ER120S-1 / ASME SFA 5.28 Class ER120S-1

### DESCRIPTION

- MIDALLOY ER120S-1 is a low alloy, bare welding wire suited for MIG or TIG welding.

### APPLICATIONS

- MIDALLOY ER120S-1 is used to weld HY100 and other similar steels.
- Welds exhibit high strength as well as low temperature toughness down to -60°F.
- Good resistance to cold cracking.
- Used for joining large vehicle and crane manufacturing.
- High strength pressure vessels and some heat treatable steels.

### TYPICAL CHEMISTRY

C	Mn	Si	P	S	Ni	Cr	Mo	V	Ti	Zr	Al	Cu
.08	1.7	.45	.005	.005	2.0	.07	.50	.01	.003	.003	.003	.18

### TYPICAL MECHANICAL PROPERTIES

TENSILE STRENGTH	125,000 PSI
YIELD STRENGTH	115,000 PSI
ELONGATION IN 2"	19%
CHARPY V NOTCH @ -60°F	75 ft. lbs.

### WELDING PARAMETERS (GMAW)

DIA.	SPRAY TRANSFER			SHORT ARC		
	AMPS.	VOLTS	GAS	AMPS.	VOLTS	GAS
.035"	160-200	28 – 32	98 Ar/2 O <sub>2</sub>	100-140	22 - 25	100% CO <sub>2</sub>
.045"	180-220	30 - 34	75 Ar/25 CO <sub>2</sub>	120-150	23 - 26	75 Ar/25 CO <sub>2</sub>

### OTHER INFORMATION

- Mechanical properties are greatly influenced by preheat, interpass temperature, and post weld heat treatment.

### STANDARD PACKAGING

- 33 lb. Spool
- 50 lb. bulk box

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