

MIDALLOY ER4130 WELDING WIRE

CLASSIFICATION

- AWS No Class for MIDALLOY ER4130 however made to AWS SFA 5.28 Guidelines

DESCRIPTION

- MIDALLOY ER4130 is a low alloy, welding wire suited for mig, tig or sub-arc welding.

APPLICATIONS

- MIDALLOY ER4130 is used to weld very high strength low alloy steels as well as tool steels like AISI 4130, 4140, 4150 and 4340. In some cases may be used to weld AISI 8620.
- Welds exhibit high strength in the as welded condition and have adequate ductility (i.e. 15%).

TYPICAL CHEMISTRY

C	Mn	Si	P	S	Ni	Cr	Mo	V	Ti + Zr	Al	Cu
.31	.52	.25	.005	.005	.05	.92	.20	.004	.004	.016	.21

TYPICAL MECHANICAL PROPERTIES (GAS 75%AR 25%CO2)

TENSILE STRENGTH	145,000 PSI	110,000 PSI	178,000 PSI
YIELD STRENGTH	130,000 PSI	90,000 PSI	170,000 PSI
% ELONGATION -HARDNESS RC	11% - 32 RC	20% - 26 RC	7% - 40 RC
CONDITION	A	B	C

A PWHT @1150° F, NORMALIZE 1550° F AND TEMPER AT 1050° F

B PWHT @1150° F

C PWHT @1150° F, NORMALIZE 1650° F AND TEMPER AT 800° F

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

Normal preheat 400°F. Inter-pass 800°F. After completing welding slow cool to prevent cracking. Final heat treatment will determine physical data.

WELDING PARAMETERS

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

STANDARD PACKAGING

- TIG 10 lb. tube/60 lb. carton
- MIG 33 lb. spool

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