

MIDALLOY ER439Ti BARE WIRE

CLASSIFICATION

- No AWS classification; reference AWS 5.9 class ER439 Mod.
- ISO 14343-A GZ 18 Ti L
- W. No 1.4510
- Midalloy ER439Ti is made in accordance with AWS 5.9 processes but cannot be certified to AWS 5.9.

DESCRIPTION

Midalloy ER439Ti is a ferritic stainless wire. The high Silicon content in Midalloy ER439Ti provides for a smooth spatter free weld deposit. The low carbon content along with the Titanium addition provides excellent welding characteristics.

APPLICATIONS

- Base material plates such as type 439Ti, 439, 430, 409Cb and other ferritic stainless steels are welded to themselves and to other carbon and alloy steels.
- ER439Ti is an excellent choice to weld automotive exhausts as well as flues and ducts subject to moderately high temperatures.
- Single pass welds on light gage base metal or welds with preheat do not usually require PWHT.
- Midalloy ER439Ti can be used to weld aluminized 409 and 439 provided sufficient filler metal is added.

TYPICAL CHEMISTRY

C	Si	Cr	Mn	P	Cu	S	Ti
.03	.80	18.0	0.8	.015	.05	.010	12 X C min

TYPICAL MECHANICAL PROPERTIES

TENSILE STRENGTH	76,500 PSI
YIELD STRENGTH	40,500 PSI
ELONGATION IN 2"	20%
HARDNESS HB30	150

RECOMMENDED WELDING PARAMETERS

PROCESS	DIAMETER	VOLTAGE	AMPERAGE	GAS / FLUX*
TIG (GTAW)	1/16"	14-18	90-130	100% Ar
	3/32"	15-20	120-175	100% Ar
	1/8"	15-20	150-220	100% Ar
MIG (GMAW)	.035" SHORT ARC	16-26	70-160	Ar-He-CO ₂
	.035" SPRAY ARC	26-31	150-230	92%Ar-2%CO ₂ or
	.045" SPRAY ARC	28-32	180-280	98%Ar-2%O ₂
SUB-ARC (SAW)	3/32"	28-30	275-350	Record IN or
	1/8"	29-32	350-450	Record IND 24

PACKAGING

- TIG 10 lb. tube / 60 lb. carton
- MIG 30 lb. spool
- SUB-ARC 60 lb. coil

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