

MIDALLOY Mastercor E81T1- Ni1C, Ni1M FLUX-CORED WIRE

CLASSIFICATION

- AWS 5.29 Class E81T1-Ni1C, Ni1M / ASME SFA 5.29 Class E81T1-Ni1C, Ni1M
- UNS W1203X

DESCRIPTION

- MIDALLOY Mastercor E81T1-Ni1 flux-cored wire is an “out of position”, 1% nickel flux-cored wire, particularly suited when strength and toughness are required.
- This wire can be used for single or multiple pass welding.
- Fast freezing slag allows excellent out of position welding
- Smooth bead profile

APPLICATIONS

- For joining applications welding for attaching wear plates like HR-400 and HR-500 to carbon and alloy steel when low temperature impact resistance is required.
- For welding of common materials include ASTM A203, A532 Grades LC1 and LC2, A575, A734 as well as other steels containing 1% to 2.5% Nickel.
- These alloys are used extensively in the mining industry, offshore platform fabrication, structural bridge supports, earthmoving equipment and the power generation industry for low temperature toughness.

TYPICAL CHEMISTRY (as deposited)

C	Mn	Si	P	S	Ni	GAS
.03	1.15	.44	.009	.008	.99	CO2
.03	1.29	.50	.009	.008	0.98	75%AR / 25%CO2

TYPICAL MECHANICAL PROPERTIES

PER SHIELDING GAS	CO2 A.W.	75 AR / 25% CO2 A.W.	STRESS RELIEVED @ 1,150°F
TENSILE STRENGTH	83,000 PSI	90,000 PSI	86,000
YIELD STRENGTH	77,400 PSI	76,000 PSI	75,000
%ELONGATION IN 2"	24%	23%	25%
Impacts -40°F(-40°C)	60 ft-lbs	76 ft-lbs (103J)	69 ft-lbs
Impacts -60°F(-51°C)	40 ft-lbs	63 ft-lbs (85J)	44 ft-lbs

Note: Post weld heat treatment above 1,150°F (620°C) will reduce impact values.

RECOMMENDED WELDING PARAMETERS

DIA.	FLAT		VERTICAL-UP		OVERHEAD	
	VOLTS	AMPS	VOLTS	AMPS	VOLTS	AMPS
1/16"	28-34	290-400	22-26	150-250	23-26	90-290
.045"	21-21	100-300	21-28	100-230	21-29	150-280

- Shielding Gas 100% CO₂. 35-50 cfh

STANDARD PACKAGING

- 33 lb. spool
- Available sizes .045", .052" and 1/16"

12/30/09

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