



# 81T1-NI

**Certifications:**

AWS A5.29  
ASME SFA 5.29

## Features

- Smooth arc and low spatter
- Fast freezing characteristics
- Smooth bead profile

## Applications

- Used for all position, single and multiple pass welding.
- Excellent for welding steels requiring low temperature CVN toughness and moderate tensile strength.

## Diameters & Packages

Diameter	11 lb Spool	33 lb Spool
0.045"	✓	✓
1/16"		✓

## Technical Specifications

**Typical Chemical Composition:**

Chemical	C	Mn	Ni	P	Si	S
Wt% CO2	0.03	1.15	0.91	0.008	0.41	0.008
Wt% 75 AR/25 CO2	0.03	1.29	0.90	0.009	0.50	0.009

**Recommended Weld Parameters:**

Diameter	Position	Amps	Volts	IPM
0.045"	Flat	100-300	21-32	282
	Overhead	150-280	21-29	265
	Vertical Up	100-230	21-28	265
0.052"	Flat	100-330	19-32	360
	Overhead	150-310	21-28	245
	Vertical Up	150-280	21-27	245
1/16"	Flat	150-400	22-34	300
	Overhead	150-310	22-28	160
	Vertical Up	150-280	22-27	160

**Typical Mechanical Properties (CO2)**

Tensile Strength	Yield Strength	Percent Elongation
86,400 psi	73,700 psi	27%

**Typical Mechanical Properties (75%Ar/ 25%CO2)**

Tensile Strength	Yield Strength	Percent Elongation
89,000 psi	80,000 psi	24%