



# 309LT1-1

**Specifications / Certifications:**  
AWS A5.22 E309LT1-1/4

## Features

- Excellent usability with stable arc
- Less spattering
- Good bead appearance
- Better slag removal
- Less quantity of welding fume comparable to solid wire

## Applications

- Stainless steels and carbon steels
- Stainless steels and low alloy steels

## Technical Specifications

- Use 100% CO<sub>2</sub> gas or Ar+20-25% CO<sub>2</sub> gas.
- The optimum flow of CO<sub>2</sub> for shielding is 20-25 l/min.
- Protect the weld with a screen to prevent blowholes caused by wind where the wind velocity is 6.56 ft/sec (2m/sec) and more.
- Keep the distance between tip & base metal at 0.59-0.98 in (15-25 mm).
- For multi-layer welding, keep preheat and inter-pass temperature below 302°F (150°C)

### Recommended GMAW Weld Parameters:

Flat	
Diameter	Amps
0.045"	180-220A
0.062"	200-280A
Horizontal Fillet	
Diameter	Amps
0.045"	180-220A
0.062"	200-280A
Vertical Up	
Diameter	Amps
0.045"	120-160A
0.062"	160-220A

### Typical Chemical Composition:

Chemical	C	Mn	Si	P	S	Cr	Ni	Mo
<b>AWS</b>	0.04 max	0.5-2.5	1.0 max	0.04 max	0.03 max	22-25	12-14	0.5 max
<b>100% CO<sub>2</sub></b>	0.02	1.30	0.60	0.022	0.006	23.20	12.80	0.02
<b>Ar+20% CO<sub>2</sub></b>	0.03	1.46	0.78	0.025	0.004	23.55	12.71	0.05

### Typical Mechanical Properties:

	Tensile Strength (psi)	Elongation	Impact Value (J)
<b>AWS</b>	75,419 min psi	30% min	
<b>100% CO<sub>2</sub></b>	84,702 psi	41%	52
<b>Ar+20% CO<sub>2</sub></b>	89,198 psi	41%	67

## Diameters & Packages

Diameter		Lbs	Pkg
0.035"	7/200"	10	Spool
		33	Spool
0.045"	3/64"	10	Spool
		33	Spool
0.062"	1/16"	33	Spool
0.093"	3/32"	10	Box

### Welding positions



1G



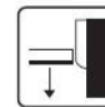
2F



3G



V-UP



V-DOWN



4G