



E101T1-G

CLASSIFICATIONS: AWS A5.29/ASME SFA 5.29 Class: 101T1-GM

DESCRIPTION: E101T1-G is a low alloy steel recommended for single and multiple pass, all position welding of quenched and tempered steels that require postweld stress relief. It produces excellent high strength properties in the as welded condition. Smoothcor® 101T1-G is designed to weld oilfield components that require a postweld stress relief (not for postweld quench and temper treatments). It is an excellent choice for welding quenched and tempered steels such as 4130, 8630, and similar types. The weld metal Nickel content of less than 1% meets NACE requirements. It is useful for high strength, low alloy steels where 100 ksi tensile strength and excellent toughness are required in the as welded condition. Fast freezing slag facilitates all position welding. Easy slag removal.

SHIELDING GAS: Mixed Gas 75% Ar/25% CO₂ 44-55 cfh

TYPICAL DEPOSIT CHEMISTRY: (75% Ar/25% CO₂)

| C | Mn | P | S | Si | Ni | Mo |
|-----|------|-----|------|-----|-----|-----|
| .06 | 1.40 | .01 | .007 | .30 | .85 | .35 |

TYPICAL MECHANICAL PROPERTIES: (75% Ar/25% CO₂)

| | As Welded | SR-1hr @ 1150°F | SR-8hr @ 1175°F |
|------------------------|-----------|-----------------|-----------------|
| Tensile Strength (psi) | 111,100 | 103,000 | 106,400 |
| Yield Strength (psi) | 98,700 | 94,000 | 99,100 |
| Elongation (%) | 19 | 22 | 22 |
| CVN (ft•lbs) @ 0°F | 65 | 36 | |
| CVN (ft•lbs) @ -25°F | | | 22 |
| CVN (ft•lbs) @ -50°F | 47 | | |

TYPICAL WELDING PARAMETERS: (75% Ar/25% CO₂)

| Diameter | Position | Operating Range | | Optimum | | | |
|----------|-------------|-----------------|-------|---------|-----------|-------|---------|
| | | Amps | Volts | Amps | WFS (ipm) | Volts | ESO |
| .045" | Flat | 140-330 | 21-32 | 250 | 450 | 28 | ½" - 1" |
| | Overhead | 150-280 | 21-30 | 190 | 305 | 26 | ½" - 1" |
| | Vertical up | 130-260 | 21-29 | 200 | 305 | 25 | ½" - 1" |

Notice: The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.