

# GMM TIG 308LSi

## Classification:

Class: AWS : A5.9- ER308LSi

EN 14343- A : W 19 9 LSi

**Material Conforms to:** AWS A5.9 & EN 14343-A

**Weld Process Used:** TIG (GTAW)

## Description:

ER308LSi has been held to a maximum of 0.03% to reduce the possibility of intergranular carbide precipitation and Si increase to 0.65% to 1.00%. ER308LSi is ideal for welding Types 304L, 321, and 347 stainless steels.

## Chemical Composition of wire:

| Standard Requirement        |         |           |           |          |             |             |             |             |
|-----------------------------|---------|-----------|-----------|----------|-------------|-------------|-------------|-------------|
| C                           | Mn      | Si        | Cr        | Ni       | Mo          | Cu          | S           | P           |
| 0.03 max                    | 1.0-2.5 | 0.65 -1.0 | 19.5-22.0 | 9.0-11.0 | 0.50<br>max | 0.50<br>max | 0.02<br>max | 0.03<br>max |
| Average Typical composition |         |           |           |          |             |             |             |             |
| 0.025                       | 1.53    | 0.83      | 19.65     | 9.12     | 0.30        | 0.28        | 0.009       | 0.027       |

## Mechanical Properties:

| Tensile Strength<br>(Min) | Yield Strength<br>(Min) | Elongation<br>(Min) |
|---------------------------|-------------------------|---------------------|
| 600 MPa                   | 400 MPa                 | 35%                 |

## Available sizes:

- **Diameter-** 1.20 mm, 1.60 mm, 2.00 mm, 2.40 mm, 3.20 mm, 4.00 mm
- **Length-** 1000 mm & 36" Inch

## Welding position:

- All position

**Polarity:**

- DCEN (DC-)

**Recommended Welding Parameters:**

| <b><u>GTAW "TIG Process"</u></b> |                       |                     |                             |
|----------------------------------|-----------------------|---------------------|-----------------------------|
| <b><u>Wire Diameter</u></b>      | <b><u>Amps DC</u></b> | <b><u>Volts</u></b> | <b><u>Shielding Gas</u></b> |
| 1.20                             | 80-110                | 13-16               | Argon 100%                  |
| 1.60                             | 90-130                | 14-16               | Argon 100%                  |
| 2.40                             | 120-175               | 15-20               | Argon 100%                  |
| 3.20                             | 140-200               | 17-22               | Argon 100%                  |
| 4.00                             | 160-230               | 18-25               | Argon 100%                  |

**Packing Details:**

- 1 Kg/2lbs – Tube
- 5 Kg/10lbs – Tube
- 20Kg/40lbs - Box (4 Tubes)

**Note:** Other shielding Gases may be used for TIG welding. Shielding gases are chosen taking Quality, Cost, and Operability into consideration.