



# GMM TIG 307Si

## Classification:

Class: DIN 8556- 1.4370

EN 14343- A : W 18 8 Mn

**Material Conforms to:** DIN 8556- 1.4370 & EN 14343-A

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

## Description:

GMM TIG 307Si is a solid wire electrode for GTAW, intended for welding work-hardenable steels, Armor steel and austenitic stainless manganese steels. Also suitable for joining stainless chromium steels with chromium content up to 17% and overlay welding of mild steels and low-alloy steels. GMM TIG 307Si is similar to ER 307 type with increased manganese content ( $\approx 6.0\%$ ), reducing the risk for hot cracking.

## Chemical Composition of wire:

Standard Requirement								
C	Mn	Si	Cr	Ni	Mo	Cu	S	P
0.20 max	5.0 – 8.0	1.5 max	17.0-20.0	7.0-10.0	0.50 max	0.50 max	0.025 max	0.035 max
Average Typical composition								
0.09	6.35	0.70	17.52	7.15	0.35	0.38	0.008	0.031

## Mechanical Properties:

Tensile Strength (Min)	Yield Strength (Min)	Elongation (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.