



GMM TIG 309LSi

Classification:

Class: AWS : A5.9- ER309LSi

EN 14343- A : W 23 12 LSi

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

Weld Process Used: TIG (GTAW)

Description:

The alloy is also used for welding of buffer layers on C-Mn steels and welding of dissimilar joints. When using the wire for buffer layers and dissimilar joints it is necessary to control the dilution of the weld. The maximum carbon content of less than 0.03% preserves the intergranular corrosion resistant properties of the weld deposit and weld zone, Yielding x-ray quality welds. The higher silicon content improves the welding properties, such as wetting.

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	23.0-25.0	12.0-14.0	0.5 max	0.5 max	0.02 max	0.03 max
Average Typical composition								
0.024	1.57	0.82	23.27	12.11	0.08	0.28	0.011	0.027

Mechanical Properties:

Tensile Strength (Min)	Yield Strength (Min)	Elongation (Min)
600 MPa	400 MPa	30%

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:

<u>GTAW "TIG Process"</u>			
<u>Wire Diameter</u>	<u>Amps DC</u>	<u>Volts</u>	<u>Shielding Gas</u>
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.