

GMM TIG 310

Classification:

Class: AWS : A5.9- ER310

Material Conforms to: AWS A5.9

Weld Process Used: TIG (GTAW)

Description:

ER 310 is used for welding types AISI 310, 304 clad stainless steel, ferritic and martensitic chromium steels, and for stainless steel overlay work on mild and carbon steels. 310 welding wire produces weld deposits of high strength and high resistance to scaling at elevated temperatures. Scaling resistant ferritic chromium steels, provided that corrosion attack by reducing sulphur-bearing combustion gases is not be expected. Weld metal exhibits good toughness down to -196°C and non-scaling up to 1200°C.

Chemical Composition of wire:

Standard Requirement								
C	Mn	Si	Cr	Ni	Mo	Cu	S	P
0.08-0.15	1.0-2.5	0.30-0.65	25.0-28.0	20.0-22.5	0.75 max	0.75 max	0.03 max	0.03 max
Average Typical composition								
0.92	1.57	0.43	26.47	20.31	0.035	0.15	0.004	0.022

Mechanical Properties:

Tensile Strength (Min)	Yield Strength (Min)	Elongation (Min)
650 MPa	420 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.