

# Product Data Sheet

## SUPERMIG 312

**SS MIG WELDING WIRE**  
Stainless and Heat resistant steels

### Classification:

**AWS A 5.9 : ER 312**  
**EN ISO 14343 : G 29 9**

**Description:** SUPERMIG 312 is a solid MAG welding wire ,supplied precision layer wound , depositing a C- 29 Chrome, 9 Nickel weld metal suitable for use with Ar + 2% O2 or Ar + 0.5.....5% CO2 mixed shielding gases .

SUPERMIG 312 used for welding of steels such as medium and high carbon steels and dissimilar steel combinations. SUPERMIG 312 offer a high tolerance to dilution and therefore particularly suitable for depositing buffer layers prior to surfacing. The deposited weld metal contains ~ 30% delta ferrite in a tough austenitic matrix with high resistance to hot cracking .

Precision layer winding technologies ensure smooth, virtually trouble-free feeding.

### Materials to be welded

Ferrite-Austenit heterogenous joints (Black-White) .

### Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Mo	Cu	S	P
0.15 Max	1.60 - 2.50	0.30- 0.65	28.00-32.00	8.00 – 10.50	0.75 max.	0.75 max.	0.03 max.	0.03 max.

### Typical All Weld Mechanical Properties

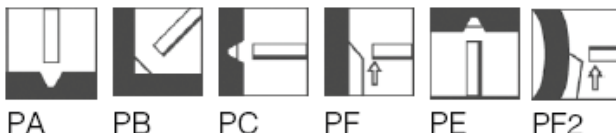
Yield Strength N/mm <sup>2</sup>	Tensile Strength N/mm <sup>2</sup>	Elongation A5 (%)	Impact Energy ISO – V (J) 20° C
≥550	≥700	≥22%	≥30

**Welding Directions :-** MIG welding can be performed as short, spray or pulsed arc. Short arc is preferably used for thin gauges, both for horizontal and positional welding. Spray arc increases the deposition rate. Welding with pulsed arc gives excellent possibilities for a good result in varying plate thicknesses in all positions. The highest flexibility using pulsed arc is achieved with 1.20 mm

**Current Conditions:-** DC (+)

**Storage:** - Keep dry and avoid condensation.

### Welding position:-





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## Recommended Welding Data:-

Diameter (mm)		0.8	1.0	1.2
<b>Operating range</b>				
Ar+1~2%CO <sub>2</sub>	Amp	40~120	80~160	100~210
	Volt	15~20	16~22	17~22
Ar+1~2%O <sub>2</sub>	Amp	160~210	180~280	200~300
	Volt	24~28	24~30	24~30

## Packing Data:

Size (mm )	0.80	0.90	1.00	1.10	1.20	1.60
Weight (kg)	12.50/15.00	12.50/15.00	12.50/15.00	12.50/15.00	12.50/15.00	12.50/15.00

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# Product Data Sheet

## SUPERTIG 312

**SS TIG WELDING WIRE**  
Stainless and Heat resistant steels

**Classification :**

AWS A 5.9 : ER 312  
EN ISO 14343 : W 29 9

**Description:** SUPERTIG 312 is a stainless TIG rod suitable for welding or surfacing difficult to weld steels. Suitable for welding buffer layers. The excellent mechanical properties and the notch toughness make SUPERTIG 312 suitable for a wide range of applications .

**Materials to be welded**

Dissimilar and difficult to weld steels .

**Typical Chemical Composition (%)**

C	Mn	Si	Cr	Ni	Mo	Cu	S	P
0.15 max	1.50-2.20	0.30-0.65	28.00-32.00	8.00-10.50	0.75 max.	0.75 max.	0.03 max.	0.03 max.

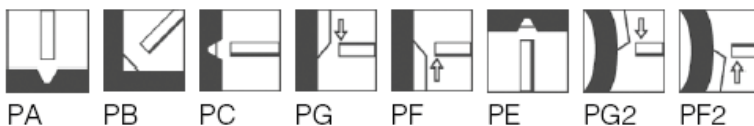
**Typical All Weld Mechanical Properties**

Yield Strength N/mm <sup>2</sup>	Tensile Strength N/mm <sup>2</sup>	Elongation A5 (%)	Impact Energy ISO-V(J) 20° C
≥ 450	≥ 650	≥ 22	≥ 47

**Current Conditions:** - DC (-)

**Storage:** - Keep dry and avoid condensation.

**Welding Position:-**



**Packing Data**

Size(mm) DxL	0.80 x 1000	0.90 x 1000	1.00 X1000	1.20 X 1000	1.60 x 1000	2.00 x 1000	2.40 x 1000	3.20 x 1000	4.00 x 1000
Net wt. per tube( kg)	5	5	5	5	5	5	5	5	5
Net wt. per Box( kg)	20	20	20	20	20	20	20	20	20

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