

# PRODUCT DATA SHEET

## MIG WIRE - PROWELD - 347Si/ G 19 9 Nb Si

**Classification:** AWS / ASME - SFA 5.9/5.9M ER 347Si  
BS EN 14343: 2009 – G19 9 Nb Si

**Approvals:** TUV, CE Marking, IBR

### **Typical Applications:**

Proweld 347Si is primarily used for welding stabilized austenitic stainless steel of type 321 and 347 This can be also used for welding austenitic stainless steel of type 304L/1.4306, 304/1.4301.

The higher silicon content gives better arc stability and weld fluidity. The 700°C is the maximum service temperature till the material exhibit excellent resistance to scaling. The presence of Nb and Ta are effective in stabilizing carbon in and in providing high temperature strength also restricts carbide precipitation at grain boundaries.

### **Welding Parameters:**

<b>Diameter</b> (mm/in.)	<b>Current</b> (A)	<b>Voltage</b> (V)
0.80 / 0.030"	100-160	18-22
1.00 / 0.040"	140-200	18-24
1.20 / 0.045"	170-260	20-28
1.60 / 0.060"	220-350	24-36

Welding parameters such as Current, Voltage are just guidelines to users because it depends on application, section thickness of job, design of joints, arc travel speed etc.

### **Wire Composition: (%)**

	C	Mn	Si	Cr	Ni	S	P	Mo
min	-	1.0	0.65	19.0	9	-	-	-
max	0.08	2.5	1.00	21.0	11	0.02	0.03	0.30

Nb= 10°C to 1.0 Max

### **Shielding Gas:**

M12 Argon+2% CO<sub>2</sub>, 14-20 LPM  
M13 Argon+1-3% O<sub>2</sub>, 14-20 LPM

### **Corrosion resistance:**

Superior to type 308L. When surfacing on mild steel a corrosion resistance equivalent to ASTM 304 is obtained at the first run.

### **Mechanical properties (Typical as Weld):**

Tensile Strength	610N/mm <sup>2</sup>
Yield Strength	415 N/mm <sup>2</sup>
Elongation A5	35%
Impact energy(20° C)	110J
-196°C	30 J
Hardness	190 BHN

### **Packaging Detail:**

Diameter : 0.80, 1.00, 1.20 , 1.60 mm \*

Packing \*\* : 12.5Kg (25 lbs), 15Kg (30 – 33lbs)  
Layer wound plastic spools i.e. SD300, Metallic basket (K300).  
5Kg (10lbs) layer wound plastic spools i.e. SD200.  
1Kg (2lbs) layer wound plastic spools i.e. SD100.  
Drum pack 100 kgs and 250 kgs (0.80, 1.00, 1.20mm)

\*Also available in AWS standard diameters.

### **Ferrite content:**

Ferrite Number about 9 – WRC-92