

Stainless Steel Electrodes (MMAW)

SME 347-16



 **SENOR[®]**
One Stop Solution for Welding & Brazing Consumables

SME 347-16

Stick Electrodes (MMAW)

Stainless Steel

Classifications:

AWS SFA5.4/A 5.4M : E 347-16
UNS NUMBER : W34710
EN ISO 3581-A : E 19 9 Nb R 32

Characteristics:

The nominal composition (wt %) of SME 347-16 weld metal is 19.5 Cr, 10 Ni with Nb or Nb Plus Ta added as a stabilizer. Either of these additions reduce the possibility of inter granular chromium carbide precipitation and thus increases resistance to inter granular corrosion. Tantalum and niobium are almost equally effective in stabilizing carbon and in providing high temperature strength. The electrode is rutile type and intended for high temperature service or applications. For welding of Ti-stabilized steels such as ASTM 321 and 347 that exposed to service temperature exceeding 400oC. Also.

Applications:

1. SME 347-16 welding Electrodes is suitable for joining of stainless steels of similar composition.
2. Especially those involving high- temperature service, are adversely affected if the ferrite content to high.
3. It is ideal for welding of AISI 304, 304L, 321, 347 and their equivalents.
4. Used for the second layer (first layer 309L type) when cladding mild steel.

Mechanical Properties – All-Weld:

Tensile Strength Min – 520 Min
Elongation % Min – 30 %

Weld Metal Chemistry (wt%):

C	Cr	Ni	Mo	Mn	Nb(Cb) + Ta -	Si	P	S	Cu
0.08 max	18 - 21	9 - 11	0.75 max	0.5 - 2.5	8 X C min to 1.00 max	1.0 max	0.04 max	0.03 max	0.75 max

Current Conditions: AC, DC (+):

2.5	3.15	4.0	5.0
60 - 80	80 - 110	100 - 150	150 - 190

Re-drying Conditions:

To obtain best results Re-dry the Electrodes at 300°C for 1hour (optionally available in vacuum packed Condition, re-drying not required in this packaging)

Note On Usage:

1. Use Stainless Steel Wire brush, Clean the area to be weld.
2. Maintain Pre Heat and Inter pass Temperature up to 150°C.
3. To obtain best results re bake the electrodes at 300°C for 1 hour and keep it at 100°C to 150°C Prior to use.
4. Follow the recommended welding parameters to achieve good sound welds.
5. Do not use excessive currents. Hold short arc, Use good fit up on Joints.

Above are basic guidelines and will vary depending on joint design, number of passes and other factors.

WARNING

Protect yourself and others. Read and understand this warning. Do not remove this warning.

Fumes and Gases can be hazardous to your health

- Before use, read and understand the Material Safety Data Sheet (MSDS), the manufacturer's instructions, and your employer's safety practices.
- If MSDS is not enclosed. Obtain from your employer.
- Keep your head out of the fumes. See Section 5 of the MSDS for specific fume concentration limits.
- Use enough Ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone and the general area. If needed, use a proper respirator.
- No hazards exist before this product is used in arc welding.

Electric Shock can kill

- Always wear dry insulating gloves
- Insulate yourself from work and ground.
- Do not touch live electrical parts.

ARC Rays can injure eyes and burn skin

- Wear welding helmet with correct filter.
- Wear correct eye, ear, and body protection.

Welding can cause fire or explosion

- Do not weld near flammable material.
- Watch for fire, keep, extinguisher nearby.

Read American National Standards Z49.1, "Safety In Welding, Cutting and Allied Process." from American Welding Society.