

Mild Steel Electrode (MMAW)

SME 6013



 **SENOR**

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Mild Steel

Classifications:

AWS A5.1/A 5.1 : E6013
EN ISO 2560-A : E35 0 R 32
IS 814 : E R 4212 JX

Characteristics:

SME6013 is very similar to the E6012 electrodes, have distinct differences. E6013 electrodes were designed specifically for light sheet metal work. However, the larger diameters are used on many of the same applications as E6012 electrodes and provide low penetrating arc. Coverings of E6013 electrodes contain rutile, cellulose, ferromanganese, potassium silicate as a binder, and other siliceous materials. The potassium compounds permit the electrodes to operate with ac at low amperages And low open-circuit voltages. E6013 electrodes are similar to the E6012 electrodes in usability characteristics and bead appearance. The arc action tends to be quieter and the bead surface smoother with a finer ripple.

Applications:

1. SME6013 electrodes recommended for sheet metal applications where their ability to weld satisfactorily in the vertical welding position with downward progression
2. Usually produce the best radiographic soundness in welding small, thin parts, used also Joining Steels like A, B, C, D grade of ASTM -283
3. Used for storage tanks, wagons, automobile frames and bodies, rolling stocks, rail coaches locomotive fire boxes, etc.
4. General purpose fabrication, Thin sheet metal welding, Excessively machined and damaged mild steel

Mechanical Properties – All Weld

Tensile Strength Min – 430 MPa
Yield Strength min – 330 MPa
Elongation Min – 17 %

Weld Metal Chemistry (wt%):

C	Mn	Si	Ni	Cr	Mo	V
0.2 max	1.20 max	1.0 max	0.30	0.20 max	0.30 max	0.08 max

Welding Current – AC, DC(-)

2.5	3.15	4.0	5.0
60 - 80	80 - 100	150 - 170	170 - 200

Re Drying Conditions

For best result achievement Re-Dry Electrodes at 100 °C for ½ hour to 1 Hour

Note On Usage:

- 1) Re-Dry Electrodes at 100 °C for ½ hour to 1 Hour and keep it use at 20 °C and above ambient Temperature
- 2) Use wire brush for cleaning of slag
- 3) Follow the recommended parameters to achieve good weld Soundness.
- 4) Do not use Excessive Currents, Hold Short Arc, Use good fit up 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.