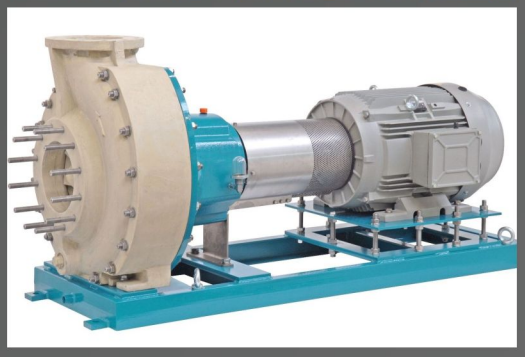
Low-Heat Input Welding Alloys

SME E21



SENOR®

One Stop Solution for Welding & Brazing Consumables

SME E21	Electrodes for MMAW Process	Ni & Ni Alloys

Low-Heat Input Welding Alloys

Alloy Basis :

Ni, Cr, Mn, Nb, Fe

Characteristics :

SME E21is a Ni-Cr-Fe basic coated stick electrode and it gives soft stable arc on low currents. Deposits are smooth, tough and has excellent resistance to scaling, corrosion resistance at normal as well as elevated temperatures. This has good thermal cycles and shock resistance. Weld deposits are similar to ENiCrFe3. HK alloys, steel, stainless steel and heat resisting steels

Technical Data :

UTS : 55-69 kgf/mm^2
Elongation (L=5d) : 30-40%

Applications :

1. Welding of nickel, monel ,Inconel.
2. Welding of nickel-chromium-iron alloys
3. For use on equipment and components made of pure nickel, for fabrication of corrosion resistant tanks and containers, heat exchangers, furnace components, boilers, fittings, anchors, mill trunnions, symmetry gears.
4. Welding dissimilar metals such as carbon steels, stainless steels, nickel, nickel alloys to each other

Welding Current : DC (+)

Size (˜ mm)/ Length	2.5 x 350	3.2 x 350	4.0 x 350	5.0 x 350
Current (amps)	60 - 80	90 - 115	100 - 140	140 - 160

Availability:

Standard Size:5.0, 4.0, 3.2 and 2.5 in 350 mm length
Packing: 2 , 5 Kg.

Note On Usage:

1. Clean and de-grease the weld area with wire brush and prepare the area to be welded.
2. Deposit SME E21 holding short / medium arc with low current to prevent excessive dilution with parent metal.
3. Dry electrode for 1 hour at 3000C
4. Preheat larger and intricate sections between 300-600°C and maintain the same during welding.
5. For heavy thickness prepare a 60 included angle V. Fit up should be accurate for long joints
6. Weld at regular intervals and use jigs & fixtures to avoid distortion
7. Follow the recommended welding parameters to achieve good sound welds
8. 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.