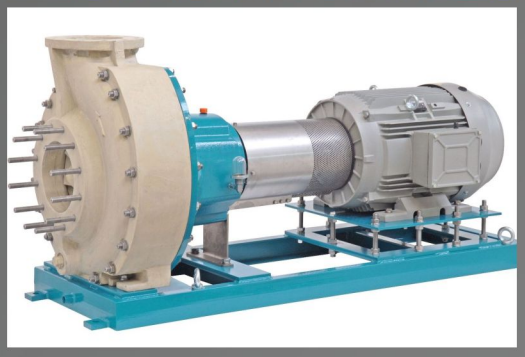
# Low-Heat Input Welding Alloys

# SME E12



SENOR®

One Stop Solution for Welding & Brazing Consumables

| SME E12 | Electrodes for MMAW Process | Ni & Ni Alloys |
|---|---|---|

# Low-Heat Input Welding Alloys

## Alloys:

Cu, Ni, Mn, Ti

## Characteristics :

SME 12 weld deposit is resistant to the action of sea water, free of porosity and crack- resistant. Slag removal is easy. Weld beads are shining and uniform.

## Technical Data :

UTS : 35-45 kgf/mm$^2$
Elongation (L = 5d) : 20-26%
Impact energy (CVN at 20°C : 85 J

## Applications :

1. Suitable for Shipbuilding, food industry, desalinization plants, refrigerators, heat exchangers
2. Welded joints and hard-surfacing on similar grades of copper-nickel alloys, with up to 30% nickel content.

## Welding Current : DC (+)

| Size (˜ mm)/ Length | 2.5 x 350 | 3.2 x 350 | 4.0 x 350 |
|---|---|---|---|
| Current (amps) | 60 - 80 | 90 - 105 | 110 - 130 |

## 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 the area to be welded and make it dirt or oil free .
2. Preheat sections more than 25 mm to 150ºC.
3. Bevel out 90ºU .
4. Deposit stringer beads and chip slag between passes.
5. Do not exceed recommended Welding Parameters.

**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.**