

# Low-Heat Input Welding Alloys

## SME A04



 **SENOR<sup>®</sup>**  
One Stop Solution for Welding & Brazing Consumables

**SME A04**

**Electrodes for MMAW Process**

**Steels**

## Low-Heat Input Welding Alloys

### Alloy Basis :

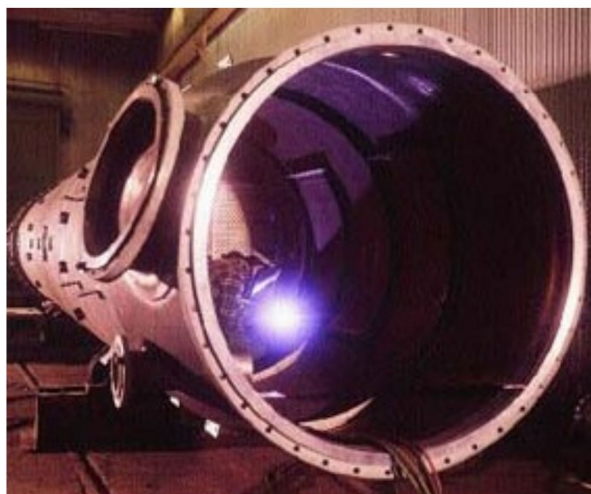
C, Mn, Si

### Characteristics :

SME A04 gives good weld appearance and slag peels off easily. This is a Low-hydrogen structural welding electrode for highly-stressed joints. The weld metal is ductile, tough, and resistant to cracking, resists ageing and of radiographic quality.

### Technical Data :

UTS : 55-69 kgf/mm<sup>2</sup>  
Elongation : 22-30%



### Applications :

1. Suitable for joining and building of low and medium carbon steels
2. Suited for welding operations on structural, boiler, pressure vessels, pipes, flanges, heavy machinery parts, steel castings,
3. Joining dissimilar sections
4. It is used for depositing
5. Buffer layer before hardfacing
6. Joining restrained joints and oil soaked parts

### Welding Current : AC / DC (+)

Size (~ mm)/ Length	2.5 x 350	3.2 x 350	4.0 x 350	5.0 x 350
Current (amps)	60 - 80	100 - 140	140 - 175	170 - 230

### Availability:

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

## Note On Usage:

- 1) Keep electrode dry (Optionally also available in vacuum-packed condition, redrying not required in this packaging)
- 2) Clean the weld area nicely and prepare joint edges.
- 3) Preheat high alloy and high carbon steel to about 200-250°C followed by slow cooling after welding.
- 4) Do not use heat treatment. Adjust cooling rate according to base material and size of work piece.
- 5) Follow the recommended welding parameters to achieve good sound welds
- 6) 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.**