

# MODI SS-309L

## Classification:

AWS A/ 5.4 : E309L-16

## Description:

MODI SS- 309L is a rutile type stainless steel electrode depositing 23 Cr-12 Ni with an extra low carbon, which has excellent corrosion and oxidation resistance in continuous service up to 1100 °C. Suitable for welding of AISI 309L steels & for joining stainless steel to mild steel.

## Applications:

- ❖ Welding of AISI 309, 309L type steels.
- ❖ Dissimilar joints between stainless steels and low alloy or carbon steels.
- ❖ For buffer layer on low alloy and carbon steels.
- ❖ Joining corrosion resistant clad steels.

## Chemical Composition of Weld Metal (WT. %):

| C        | Mn          | Si       | S         | P         | Ni          | Cr          | Mo       | Cu       |
|----------|-------------|----------|-----------|-----------|-------------|-------------|----------|----------|
| 0.04 Max | 0.50 - 2.50 | 1.00 Max | 0.030 Max | 0.040 Max | 12.0 - 14.0 | 22.0 - 25.0 | 0.75 Max | 0.75 Max |

## Mechanical Properties of Weld Metal:

| Tensile Strength<br>(N/mm <sup>2</sup> ) | Elongation L=4d<br>(%) |
|------------------------------------------|------------------------|
| 520 Min                                  | 30 Min                 |

## Current Conditions: AC (70 V) / DC (+)

| Size (mm)      | 2.50 X 350 | 3.15 X 350 | 4.00 X 350 | 5.00 X 350 |
|----------------|------------|------------|------------|------------|
| Current (Amps) | 50 - 80    | 80 - 110   | 110 - 150  | 150 - 180  |

## Welding Positions: F, H, V-up, OH

## Recommendation:

Re-dry the electrodes at 250°C for 1 hour. Keep the re-dried electrodes in holding oven before use (70 to 100°C). Use electrodes within recommended current conditions for better performance.

## Caution:

Protect yourself and others. Fumes & gases can be dangerous to health. Arc rays can injure eyes and burn skin. Electric shock can kill. Refer American National Standard Z49.1 "Safety in welding and cutting".

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