

# KM-309LMo

## Classification

|                |                        |                  |            |
|----------------|------------------------|------------------|------------|
| Shielding Gas: | Ar+1~2%O <sub>2</sub>  | AWS A5.9/A5.9M   | ER30LMo    |
|                | Ar+1~2%CO <sub>2</sub> | AS/NZS ISO 14343 | B SS309LMo |

## Applications and Features

- ( 1 ) Weld metal is austenite structure with 23%Cr-13%Ni-2%Mo.
- ( 2 ) Better strength and corrosion resistance at high temperature than 309LSi due to Mo content.
- ( 3 ) Good crack resistance due to moderate ferrite content.
- ( 4 ) It is suitable for welding dissimilar metals (carbon steel and stainless steel).

## Welding Instruction

- ( 1 ) Use Ar blend with 1~2%O<sub>2</sub> for high current, spray transfer welding .
- ( 2 ) Use Ar blend with 1~2%CO<sub>2</sub> for low current, short-circuit transfer welding.

## Typical Chemical Composition of Wire (wt%)

| C     | Si   | Mn   | P     | S     | Cr    | Ni    | Mo   |
|-------|------|------|-------|-------|-------|-------|------|
| 0.025 | 0.36 | 1.88 | 0.013 | 0.009 | 24.41 | 13.32 | 2.44 |

## Typical Mechanical Properties of Weld Metal (Shielding Gas : Ar+2% O<sub>2</sub>)

| Tensile Strength<br>MPa | Yield Strength<br>MPa | Elongation<br>% |
|-------------------------|-----------------------|-----------------|
| 620                     | 440                   | 39              |

## Size and Suggested Operating Range (DC+)

| Shielding Gas          |      | Diameter (mm) |         |
|------------------------|------|---------------|---------|
|                        |      | 0.9           | 1.2     |
| Ar+1~2%CO <sub>2</sub> | Amp  | 60~140        | 100~210 |
|                        | Volt | 15~21         | 17~22   |
| Ar+1~2%O <sub>2</sub>  | Amp  | 170~260       | 200~300 |
|                        | Volt | 24~30         | 24~30   |

| Diam. | 15 kg Spool |
|-------|-------------|
| 0.9mm | KM309Lmo09  |
| 1.2mm | KM309Lmo12  |

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