

# AKR407L

**Description:** AKR407L is a kind of low carbon heat-resistant steel electrode with low-hydrogen sodium type coating. It has excellent technological performance, low spatter, stable arc, good slag detachability, beautiful appearance of weld. DCRP (Direct Current Reversed Polarity). All-position welding. The weldments should be given preheating to 160~220°C before welding. The weldments should be given tempering at 680-720°C after welding.

**Application:** Used for welding Cr2.25%-Mo1.0% (like 2.25Cr1Mo) heat-resistant steel below 550 °C such as high temperature and high pressure pipes, chemical machinery, petroleum cracking unit ,etc..

## Typical Chemical Composition(%):

|                      | C     | Mn  | P     | S     | Si   | Cr      | Mo      |
|----------------------|-------|-----|-------|-------|------|---------|---------|
| <b>Requirement</b>   | 0.05  | 0.9 | 0.03  | 0.03  | 1.0  | 2.0-2.5 | 0.9-1.2 |
| <b>Actual Result</b> | 0.046 | 0.8 | 0.008 | 0.006 | 0.32 | 2.2     | 1.1     |

## Typical Mechanical Properties : ① =normal temperature

|                      | Tensile strength ( MPa) | Yield Stress ( MPa) | Elongation (%) | Impact Values ( J) |
|----------------------|-------------------------|---------------------|----------------|--------------------|
| <b>Requirement</b>   | ≥ 550                   | ≥460                | ≥ 15           | 2 7J / ①           |
| <b>Actual Result</b> | 590                     | 510                 | 19             | 1 6 0J / ①         |

## Notes on Usages:

1. The electrodes must be baked at 350~380°C for an hour before welding and used as soon as baking is completed.
2. The stains on the weldments, such as rust, oil stains, moisture, etc., must be cleared away before welding