



GB/T 13814 ENi6117

AWS A5.11 ENiCrCoMo-1

EN ISO 14172-ENi6117

# AK ENiCrCoMo-1

**Description:** AK-ENiCrCoMo-1 is a nickel-based alloy electrode with low-hydrogen coating. Its chemical composition is NiCr22Co12Mo. Can be welded in all positions.

**Application:** Mainly used for welding nickel-based alloys such as Inconel 600/601, Incoloy 800H, Incoloy 825 and HK40/HP40 iron-nickel-based high-temperature corrosion-resistant alloys.

## Typical Chemical Composition(%):

|               | C          | Si   | Mn   | S     | P     | Fe   | Ni    | Cr        | Mo         |
|---------------|------------|------|------|-------|-------|------|-------|-----------|------------|
| Requirement   | 0.05-0.15  | 1.00 | 3.00 | 0.015 | 0.020 | 5.00 | ≥45   | 20.0-26.0 | 8.00-10.00 |
| Actual Result | 0.09       | 0.35 | 1.13 | 0.004 | 0.009 | 1.50 | 52.86 | 23.5      | 8.72       |
|               | Co         | Cu   | Al   | Ti    |       |      |       |           |            |
| Requirement   | 9.00-15.00 | 0.50 | 1.50 | 0.60  |       |      |       |           |            |
| Actual Result | 11.5       | 0.02 | 0.15 | 0.17  |       |      |       |           |            |

## Typical Mechanical Properties:

|               | Tensile Strength (MPa) | Yield Stress ( MPa) | Elongation (%) | Impact Values ( J) |
|---------------|------------------------|---------------------|----------------|--------------------|
| Requirement   | ≥620                   | ≥400                | 22             |                    |
| Actual Result | 760                    | 540                 | 30             |                    |