



GB/T 13814 —

AWS A5.14 ERNiCrMo-9

EN ISO 14172 —

# AK ERNiCrMo-9

**Description:** ERNiCrMo-9 is a nickel-chromium-molybdenum filler metal developed for high-performance welding in severe corrosive service. It provides excellent resistance to pitting, crevice corrosion and stress corrosion cracking, together with stable arc characteristics, sound weld integrity and reliable mechanical performance in demanding industrial environments.

**Application:** ERNiCrMo-9 is suitable for chemical processing equipment, offshore structures, marine systems, flue gas desulfurization units, heat exchangers, pressure vessels and other components exposed to aggressive media. It is widely used for welding nickel-based alloys, dissimilar joints, corrosion-resistant overlay and repair work requiring long-term service reliability.

## Typical Chemical Composition(%):

|               | C     | Mn   | Fe        | P     | S       | Si   | Cu        | Ni   | Co   |
|---------------|-------|------|-----------|-------|---------|------|-----------|------|------|
| Requirement   | 0.015 | 1.0  | 18.0-21.0 | 0.040 | 0.030   | 1.0  | 1.50-2.50 | Rem. | 5.0  |
| Actual Result | 0.010 | 0.40 | 19.60     | 0.015 | 0.010   | 0.50 | 1.86      | Rem. | 3.52 |
|               | Al    | Ti   | Cr        | Nb+Ta | Mo      | V    | W         | Zr   | B    |
| Requirement   | —     | —    | 21.0-23.5 | 0.50  | 6.0-8.0 | —    | 1.50      | —    | —    |
| Actual Result | —     | —    | 21.65     | 0.10  | 6.82    | —    | 1.0       | —    | —    |

## Typical Mechanical Properties:

|               | Tensile Strength (MPa) | Yield Stress (MPa) | Elongation (%) | Impact Values (J) |
|---------------|------------------------|--------------------|----------------|-------------------|
| Requirement   | ≥590                   |                    |                |                   |
| Actual Result | 657                    |                    |                |                   |