



# AKM-55

GB/T 8110 E80C-Ni1

AWS A5.18 E80C-Ni1

EN ISO 17632-A:T464 1Ni MM21

**Description:** AKM-55 is a metal powder type seamless flux-cored wire, containing 1%Ni, based on seamless design, with ultra-low diffusible hydrogen content ( $\leq 3\text{ml}/100\text{g}$ ); soft and stable arc, less spatter, beautiful shape, almost no Minimum slag and dust, high deposition efficiency; excellent low temperature impact performance.

**Application:** Suitable for X80 pipeline steel bottoming and welding of bridges, port machinery, shipbuilding, offshore platforms, LPG storage tank low temperature equipment, such as welding of 1% Ni steel.

## Typical Chemical Composition(%):

|               | C    | Si   | Mn   | S     | P     | Ni      | Cr | Mo   |   |
|---------------|------|------|------|-------|-------|---------|----|------|---|
| Requirement   | 0.12 | 0.9  | 1.5  | 0.025 | 0.025 | 0.8-1.1 | —  | 0.30 | — |
| Actual Result | 0.06 | 0.57 | 1.34 | 0.005 | 0.010 | 1.0     | —  | 0.15 | — |

## Typical Mechanical Properties:

|               | Tensile Strength (MPa) | Yield Stress (MPa) | Elongation (%) | Impact Values (J)              |                       |                       |
|---------------|------------------------|--------------------|----------------|--------------------------------|-----------------------|-----------------------|
| Requirement   | $\geq 550$             | $\geq 470$         | $\geq 24$      | $\geq 27(-20^{\circ}\text{C})$ | $-40^{\circ}\text{C}$ | $-50^{\circ}\text{C}$ |
| Actual Result | 615                    | 540                | 26             | 133                            | 98                    | 79                    |

## Recommended welding parameters:

| Diameter/ mm      | 1.2     | 1.6     |   |   |
|-------------------|---------|---------|---|---|
| Welding voltage/V | 20-32   | 25-35   | — | — |
| Welding current/A | 180-300 | 250-350 | — | — |