# AK-69M

GB/T 17493 E691T1-K3M

AWS A5.29 E101T1-K3M

EN ISO 18276-A:T 552 Mn2NiP M21 1

**Description:** It is a seamless rutile flux cored wire which contains 2%Ni; Due to its seamless characteristic, the wire has an extremely low hydrogen content (typical 3ml/100g weld metal), which can effectively reduce the risk of hydrogen-induced cracks; It has a stable welding arc with less spatter and perfect bead surface, it also has excellent weldability.

**Application:** Welding for port machinery, bridges, such as HY-100, A514 high strength steel.

## Typical Chemical Compostion(%):

| | C | Si | Mn | S | P | Ni | Cr | Mo | |
|---|---|---|---|---|---|---|---|---|---|
| **Requirement** | 0.15 | 0.80 | 0.5-2.25 | 0.03 | 0.03 | 1.25-2.60 | 0.15 | 0.25-0.65 | —— |
| **Actual Result** | 0.04 | 0.30 | 1.30 | 0.005 | 0.010 | 2.20 | 0.02 | 0.30 | —— |

## Typical Mechanical Properties:

| | Tensile Strength (MPa) | Yield Stress ( MPa) | Elongation (%) | Impact Values (J) | | |
|---|---|---|---|---|---|---|
| **Requirement** | 690-830 | ≥610 | ≥ 16 | ≥27(-20℃) | -40℃ | -60℃ |
| **Actual Result** | 710 | 660 | 22 | 143 | 130 | 80 |

## Recommended welding parameters:

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