



**GB/T 5293 H08MnA**  
**AWS A5.17 EL12**  
**EN ISO 14171-AS2**

# AK EL12

## Description

EL12 is a general-purpose submerged arc welding wire with low carbon, low manganese, and low silicon content. It is designed for stable welding performance, reliable bead shape, and efficient operation in structural steel fabrication. With the right active flux, it supports high-speed welding while maintaining consistent weld appearance and solid process control.

## Application Scenario

EL12 is ideal for high-speed single-pass fillet welding, sheet and plate welding, and structural steel jobs involving common carbon steels. It is especially useful for fabrication environments that need efficient welding on large components or on plate surfaces that may be less than perfectly clean, while still keeping productivity high.

### Typical Chemical Composition(%):

	C	Si	Mn	S	P	Ni	Cr	Mo	Cu
<b>Requirement</b>	0.04-0.14	0.10	0.25-0.60	0.030	0.030	---	---	---	0.35
<b>Actual Result</b>	0.12	0.05	0.42	0.015	0.010	---	---	---	0.20

### Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
<b>Requirement</b>	---	---	---	30J(-20°C)
<b>Actual Result</b>	560	440	28	92