



GB/T 5293 —
 AWS A5.17 EM12K
 EN ISO 14171 —

AK EM12K

Description

EM12K is a copper-coated solid welding wire designed for submerged arc welding with stable arc performance, smooth wire feeding, and low spatter tendency. It provides sound weld formation, good bead appearance, and reliable mechanical properties, making it suitable for general structural steel fabrication.

Application Scenario

EM12K is widely used in steel structure fabrication, shipbuilding, storage tanks, pressure vessel parts, pipelines, and heavy machinery components. It is a practical choice for manufacturers requiring consistent welding quality, high deposition efficiency, and dependable performance in repetitive production environments.

Typical Chemical Composition(%):

	C	Si	Mn	S	P	Ni	Cr	Mo	Cu
Requirement	0.05-0.15	0.10-0.35	0.80-1.25	0.030	0.030	—	—	—	0.35
Actual Result	0.13	0.20	1.14	0.010	0.015	—	—	—	0.20

Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	—	—	—	—
Actual Result	—	—	—	—