

AK E81T1-Ni2C

Description: E81T1-Ni2 is also designed for gas shielded flux cored welding of low alloy steels that require good CVN toughness at low temperatures. It is excellent for single-pass and multi-passes, all positional welding with good operation properties like easy slag removal, stable arc, less smoke and spatter etc.

Application: Welding for 550MPa grade high strength structural steel, like vessels, machine manufacturing, petrochemical industries and structural bridges etc.

Typical Chemical Composition(%):

	C	Si	Mn	S	P	Ni	—	—	—
Requirement	0.12	0.80	1.50	0.03	0.03	1.75-2.75	—	—	—
Actual Result	0.034	0.27	1.13	0.009	0.022	2.23	—	—	—

Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact values (J)
Requirement	550-690	≥470	≥ 19	≥27J(-40℃)
Actual Result	669	616	27.5	106

Recommended welding parameters:

Diameter/ mm	1.0	1.2	1.6	Shielding Gas
Welding voltage/V	15-20	20-32	20-38	CO ₂
Welding current/A	80-150	140-300	180-400	—