



GJ-101G

Fluoride-basic type agglomerated flux (improved grade)

GB/T 5293-2018 F7A4-EM12K / F8A4-EH14

NB/T 47018.4-2017

AWS A5.17 F7A4-EM12K

Product description

Basic Information

BASICITY:	2.0 (basic)
GRAIN SIZE:	10-60 mesh (2.0-0.28mm)
DENSITY:	1.0 g/cm ³
PACKAGING:	25 kg plastic valve bags, 500/1000 kg large bags

Application

- > An improved fluoride-basic sintered flux with higher basicity, providing excellent low temperature impact toughness down to -40C and -60C.
- > Metallurgical neutral behavior with very low hydrogen content. Produces weld metal with excellent crack resistance in highly restrained joints.
- > When paired with EM12K wire, suitable for welding pressure vessels, storage tanks, and structural steel requiring F7A4 classification with -40C impact toughness.
- > When paired with EH14 wire, suitable for welding high strength low alloy steels, offshore structures, and heavy machinery requiring F8A4 classification with excellent low temperature toughness.

Main constituents

SiO ₂ +TiO ₂	CaO+MgO	Al ₂ O ₃ +MnO	CaF ₂	S	P
18-25	28-35	23-30	16-25	≤0.03	≤0.03

Mechanical Properties of Deposited Metal

Wire	Yield ≥MPa	Tensile MPa	Elongation ≥%	Impact -40C ≥J
EM12K (H08MnA)	400	480-660	26	47
EH14 (H10Mn2)	470	550-700	26	57

Note:

Sintered flux with high moisture absorption. Must be dried at 300-350C for 2 hours before use. For critical low temperature applications, dry at 350C for 2 hours and use within 4 hours.

Wire cleaning: Keep wire surface clean, free of oil, rust, and moisture. Use properly cleaned and rust-free wire for critical applications.

Groove cleaning: Clean groove and 20mm range on both sides thoroughly. Preheat may be required for thick sections and high restraint joints.

Parameter selection: Select parameters according to steel grade, thickness, and required impact temperature. Conduct full process qualification including impact testing at required temperature before production.