



GJ-105

Fluoride-basic type agglomerated flux for surfacing

GB/T 5293-2018

NB/T 47018.4-2017

Product description

Basic Information

BASICITY:	2.2 (basic)
GRAIN SIZE:	10-60 mesh
DENSITY:	1.0 g/cm ³
PACKAGING:	25 kg plastic valve bags, 500/1000 kg large bags

Application

- > A fluoride-basic sintered flux specifically formulated for submerged arc surfacing and cladding applications, providing excellent alloy recovery and low dilution.
- > When paired with hardfacing wires, suitable for surfacing roller surfaces, mill rolls, continuous casting rolls, and other wear-resistant components in steel mills and mining operations.
- > The high calcium fluoride content provides good slag fluidity and excellent slag release at high deposition rates, ensuring smooth clad surface with uniform hardness.
- > Can be used for both single-layer and multi-layer surfacing. Suitable for circumferential surfacing of rolls, flat surfacing of wear plates, and repair of worn components.

Main constituents

SiO ₂ +TiO ₂	CaO+MgO	Al ₂ O ₃ +MnO	CaF ₂	S	P
18-22	33-37	10-20	25-30	≤0.06	≤0.08

Mechanical Properties of Deposited Metal

Application	Wire Type	Surface Hardness	Dilution	Layer
Roll surfacing	Cr-Mo-V	HRC 50-60	≤20%	2-3 layers
Wear plate	High-Cr cast iron	HRC 55-65	≤15%	2 layers

Note:

Sintered flux for surfacing. Must be dried at 300-350C for 2 hours before use to prevent porosity in the clad layer.

Base metal preparation: Clean surfacing area thoroughly, remove all oil, rust, cracks, and fatigue layers. Preheat base metal according to material and hardness requirements.

Dilution control: Adjust current, voltage, travel speed, and oscillation to control dilution. Multi-layer surfacing required to achieve target hardness and chemistry.

Post-weld treatment: Slow cooling or stress relief may be required depending on base metal and clad alloy. Conduct hardness testing and crack inspection after surfacing.