GJ-101

Fluoride-alkaline type sintered flux

Features and Advantages

- **Excellent mechanical properties of welds:**

• High toughness: The weld metal can still maintain good impact toughness at low temperatures, which is one of the most prominent advantages of SJ101.
• High strength: It can be matched with appropriate welding wires to obtain high-strength welds.
• High purity: The high basicity slag system can effectively remove harmful impurities (such as S and P) in the weld, reduce oxygen content, and reduce pores and slag inclusions.

- **Excellent welding process performance:**

• Excellent slag detachability: The slag after welding will automatically curl up, making it easy to remove, which greatly improves the slag cleaning efficiency.
◦ Beautiful weld formation: The weld surface is smooth and flat, with uniform and delicate fish-scale patterns.
◦ Stable arc: The welding process is stable with little spatter.
◦ Suitable for multi-wire welding: Especially suitable for high-speed double-wire or multi-wire submerged arc welding.

- **Wide adaptability:**

• It can be used for both DC welding and AC welding.
◦ A larger welding heat input can be adopted.

- **Strong crack resistance and clean welds:**

• The high basicity slag system has excellent desulfurization and dephosphorization capabilities, effectively controlling the content of S and P impurities in the weld (S≤0.010%, P≤ 0.020%), and significantly improving heat crack resistance.
• It has low sensitivity to the oxide scale and rust on the surface of the base metal, and its anti-pore ability is significantly better than that of fused fluxes.

GJ-101

Grain Size

- 10-60 mesh.

(Can be customized according to customer requirements)

Packaging

- 25 kg plastic valve bags, 500/1000 kg large bags.

Main constituents

SiO_2 +TiO_2	CaO+MgO	Al_2 O+MnO	CaF_2
15-25	25-35	20-30	20-30

Basicity of The flux

- B//W 1.8-2.2

Welding precautions

- **Pre-welding drying:**

◦ Drying temperature: 300°C - 350°C.
◦ Holding time: 2 hours.
◦ Storage: After drying, it should be placed in an incubator at 100°C - 150°C and taken as needed.
◦ Exposure time: The exposure time in the air should not exceed 4 hours; otherwise, it needs to be dried again.
◦ Strictly prohibited: Use flux that is damp, caked, or mixed with foreign objects.

- **Storage conditions:**

◦ It should be stored in a dry and well-ventilated room with a room temperature ≥15°C and a relative humidity ≤60%.
◦ The original packaging should be tightly sealed and stored off the ground and away from walls.

GJ-101

Typical application fields

- Pressure vessels, boilers
- Marine engineering, shipbuilding
- Bridge construction (such as steel box girders)
- High-rise building steel structures
- Heavy machinery and mining equipment
- Welding of large-diameter pipelines

Mechanical properties of the weld metal, as welded:

Wire electrodesused	Yieldstrength ≥MPa	Tensilestrength ≥MPa	Elongation8% ≥%	Impactvalues≥J (CVN)		
				+20°C	-20°C	-40°C
EL8	≥330	≥415	≥22	≥40	≥20	-
EM12K	≥400	≥480	≥22	≥80	≥50	≥27
EH14	≥470	≥550	≥20	≥80	≥60	≥40
H08Mn2MoA	≥490	≥590	≥17	≥100	≥80	≥60