JGN812 – Wind Power Blade Adhesive

Two-Component Epoxy Adhesive for Wind Turbine Blade Bonding and Repair

Product Description

JGN812 is a two-component epoxy structural adhesive designed for bonding and repairing wind turbine blades. It provides high bonding strength, excellent fatigue resistance, long pot life at room temperature, and superior durability under varying temperature and humidity conditions. The product ensures reliable bonding between composite components of large wind blades and is suitable for both manufacturing and in-field repair.

Key Features & Benefits

- Two-component epoxy with adjustable pot life and convenient construction.
- High bonding strength and excellent fatigue resistance.
- Stable curing under wide environmental conditions (–40 °C to +50 °C).
- Strong durability against temperature cycling and humidity aging.
- Applicable for both factory assembly and field repair of blades.

Performance Parameters (HG/T 5248-2017)

Item	Performance Index
Mixing ratio (A:B, by weight)	100:50
Pot life at 23 °C (min)	≥ 120
Glass transition temperature Tg (°C)	≥ 75
Shear strength at room temp (MPa, FRP/FRP)	≥ 30
Shear strength at 80 °C (MPa, FRP/FRP)	≥ 15
Tensile strength after 1000 h aging (MPa)	≥ 25
Tensile strength after 2000 h aging (MPa)	≥ 20
Peel strength (N/mm)	≥ 30
Elongation at break (%)	≥ 2.0
Elastic modulus (GPa)	≥ 1.0
Fracture toughness KIC (MPa·m^1/2)	≥ 2.0
Fatigue resistance (10^6 cycles)	Pass
Thermal cycling resistance (–40 °C to +50 °C)	Pass
Service temperature (°C)	–40 ~ +80

Product Usage

- Bonding and assembly of wind turbine blades.
- Structural repair of cracks and damage in composite blades.
- Bonding FRP, composite materials, core materials and metal inserts.

Packaging & Storage

- Supplied in kit form: A (15 kg) + B (5 kg).
- Shelf life: 12 months in unopened original packaging at 5–25 °C.
- Store in cool, dry, ventilated conditions away from direct sunlight.

Disclaimer

The information in this Technical Data Sheet is based on tests and field experience and is offered in good faith. Sino-sina Building Materials Co., Ltd. makes no warranty of results obtained under conditions beyond its control. Users should verify suitability through trial applications under actual conditions.