

Sino-Sina Building Materials Co., Ltd

JGN801 Steel Bonding & JGN803 Steel Jacketing

Adhesive Technical Data Sheet

Product Description

JGN801 is a two-component modified epoxy resin structural adhesive for steel-concrete composite structures. Available in three types: normal temperature curing, low temperature (-10°C) curing, and humid environment (water-resistant) curing.

JGN803 is a two-component modified epoxy structural adhesive specialized for fixing and potting steel, ideal for high-strength bonding surfaces.

Applications

- Bonding and strengthening concrete, masonry, and wood elements to steel plates.
- Bonding for curtain walls, marble, granite, ceramic tiles, etc.
- Repairing and bonding surfaces of concrete and steel components.
- Wet-clad steel plate strengthening for concrete, bridges, and large-area components.

Features and Benefits

- No crystallization in winter; consistent curing time (low temperature type).
- Excellent operability: no stratification, segregation, or precipitation; good thixotropy; no flow during application.
- Versatile products solve issues in harsh conditions (low/high temperature, wet surfaces, underwater).
- High strength, anti-aging, and media resistance (acid, alkali, salt).
- Superior bonding strength, toughness, shock, and impact resistance.
- Environmentally friendly: no volatile solvents; safe and non-toxic.

Technical Data

Conforms to Category I Grade A Adhesive per GB50278-2011.

Colloidal Properties

Property	Requirement
Tensile Strength (MPa)	≥ 30
Tensile Elastic Modulus (MPa)	JGN801: $\geq 3.2 \times 10^3$; JGN803: $\geq 2.5 \times 10^3$
Elongation (%)	≥ 1.2
Flexural Strength (MPa)	≥ 45 (no cracking)
Compressive Strength (MPa)	≥ 65

Adhesion Properties

Property	Requirement
Steel-Steel Tensile Shear Strength (MPa)	≥ 15
Steel-Steel Bond Tensile Strength (MPa)	≥ 33
Steel-Steel T Impact Stripping Length (mm)	≤ 25
Positive Tensile Bond Strength Steel-C45 Concrete (MPa)	≥ 2.5 (cohesive failure of concrete)
Non-Volatile Content (%)	≥ 99

Packaging and Storage

- Packaging: Component A: 9kg/drum; Component B: 3kg/drum.
- Shelf Life: 12 months in a cool, dry place.

Application Instructions

1. Clean substrate surface: Polish to remove scum/loose layers; expose new surface; blow off dust; clean with acetone.
2. Derust steel plate: Polish with sandblasting, emery, or wire brush until metallic luster appears.
3. Mix: A:B = 3:1 by weight; mix thoroughly.
4. Dosage: 5-7 kg/m² recommended.

Safety Precautions

Wear protective gear. Avoid skin/eye contact. Store away from heat.

Contact Information

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