

WIND TURBINE BLADE STRUCTURAL ADHESIVE

JGN812 Wind Turbine Blade Bonding Adhesive

Product code: JGN812 | English technical translation | Revision EN-01



Two-component structural epoxy adhesive developed for high-load bonding in large wind turbine blade shells and composite assemblies. The supplied manual positions the system around low exotherm, sag control, fatigue performance, mouldability and a practical working window.

SOURCE STATUS

Translated from the supplied Chinese product manual. Requirements are kept separate from independent test results. Confirm the current controlled TDS, batch label and project specification before approval.

Intended use

- Wind turbine blade shell bonding
- Upper and lower shell-to-web bonding
- Composite structural joints
- Large-gap blade bonding subject to qualification

Product characteristics

- Two-component epoxy with A:B = 3:1 by mass
- Thixotropic behaviour for complex bond lines
- Controlled exotherm and long working time
- Environmental conditioning and fatigue requirements
- Steel pail packaging for both components

Technical requirements

Property	Requirement / published value	Source / interpretation
Mix ratio by mass	A:B = 3:1	Supplied manual
Extrapolated glass-transition temperature	≥ 120 deg C	HG/T 5248-2017 reference in supplied manual
Glass-transition midpoint	≥ 65 deg C	Supplied manual
Volumetric shrinkage	$\leq 4.0\%$	Supplied manual
T-peel strength - 0.5 / 3.0 mm bond line	≥ 2.5 / ≥ 3.5 kN/m	Supplied manual
Creep - 0.5 / 3.0 mm bond line	≤ 0.12 / ≤ 0.30 mm	Supplied manual
Static tensile-shear strength	≥ 20 MPa	Supplied manual
Fatigue endurance limit / m value	≥ 3.5 MPa / ≥ 7.0	1.0 mm bond line; supplied manual
Bulk tensile strength	≥ 55 / ≥ 50 / ≥ 30 MPa	Three conditioning columns in supplied manual; verify current controlled TDS
Bulk tensile modulus	$\geq 4.0E3$ / $\geq 3.5E3$ / $\geq 2.0E3$ MPa	Three conditioning columns in supplied manual

Installation control

01	Confirm substrate, laminate and adhesive qualification for the blade design.
02	Condition both components to the approved temperature and verify the A:B = 3:1 mass ratio.
03	Mix until fully uniform without entraining excessive air.
04	Apply to the defined shell or shear-web bond line and complete assembly within the working window.
05	Control bond-line thickness, squeeze-out, curing temperature and qualification specimens.

Packaging and storage

Steel pails: component A 15 kg and component B 5 kg. Mix ratio A:B = 3:1 by mass. The supplied manual states a 12-month shelf life in unopened storage.

Project approval checklist

- Connection drawing, gap geometry and total material volume
- Specified requirement, test age, specimen geometry and applicable method
- Minimum and maximum material, substrate and ambient temperatures
- Mixer, pump, hose, standby equipment and continuous placement capacity
- Inspection, sampling, curing and release-strength plan
- Current approved TDS, SDS and project-specific method statement

Technical contact

Email: info@sino-sina.com | WhatsApp: +86 153 7387 2353 | Website: www.sino-sina.com

This English document is a controlled public translation prepared from the supplied Chinese manual. It is not a certificate, declaration of conformity or substitute for a project-specific approval package.