



PRECAST AND HYBRID WIND TOWER SPLICING ADHESIVE

Kuaizhuang Hybrid Wind Tower Segment Epoxy Adhesive

Product code: Kuaizhuang Segment Epoxy | English technical translation | Revision EN-01



Two-component, thixotropic modified epoxy structural adhesive for vertical and horizontal joints between precast concrete segments in hybrid wind towers. The system is designed for gap filling, controlled working time, sag resistance, load transfer and durability review.

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

- Vertical joints between precast wind tower segments
- Horizontal joints between stacked concrete tower segments
- Hybrid steel-concrete wind tower assembly
- Structural gap filling subject to the approved joint design

Product characteristics

- Thixotropic paste for overhead and vertical work
- Long application and bonding windows with rapid strength development
- High compressive strength and modulus
- Concrete-substrate failure acceptance routes
- Temperature grades K1 through K4

Technical requirements

Property	Requirement / published value	Source / interpretation
Application time / bonding time	≥ 20 / ≥ 60 min	T/CECS 10080-2020; supplied manual
Sag resistance	≥ 10 mm	Supplied manual
Squeezability at 150 / 2000 / 4000 N	≥ 3000 / ≥ 7500 / ≥ 10000 mm ²	Supplied manual
Shrinkage	$\leq 0.1\%$	Supplied manual
Heat deflection temperature	≥ 50 deg C	Supplied manual
Water absorption / water solubility	≤ 0.5 / $\leq 0.1\%$	Supplied manual
Non-volatile content	$\geq 99\%$	Supplied manual
Compressive strength - 12 h / 24 h / 7 d	≥ 20 / ≥ 60 / ≥ 80 MPa	Supplied manual
Instantaneous / 1 h delayed compressive modulus	≥ 8000 / ≥ 6000 MPa	Supplied manual
Concrete-concrete compression shear	≥ 14 MPa	Supplied manual
Steel-steel tensile shear	≥ 17 MPa	Supplied manual
Steel-concrete pull-off bond	≥ 3.0 MPa and concrete failure	Supplied manual
Fatigue action - 2 million cycles	Specimen not damaged	Supplied manual
K1 / K2 / K3 / K4 site temperature	-10 to ≤ 5 / 5 to ≤ 20 / 15 to ≤ 30 / 25 to ≤ 40 deg C	Select the grade from the approved method statement

Installation control

01	Confirm the adhesive temperature grade, joint geometry, component ratio and required erection window.
02	Prepare sound, clean and suitably dry concrete surfaces; remove laitance, dust, standing water and contamination.
03	Mix components A and B to a uniform colour using the approved equipment and time.
04	Apply a continuous layer, control joint thickness and complete segment alignment within the bonding window.
05	Inspect coverage and squeeze-out, record material temperature and batch times, and protect the joint until release strength is verified.

Packaging and storage

Two-component packaging. Confirm component weights, mix ratio and shelf life on the current product label and controlled TDS before use.

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

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