

速砵TM FAST CONCRETE

桥梁伸缩缝快速修复技术
RAPID REPAIR TECHNOLOGY OF
BRIDGE EXPANSION JOINT



Provider of comprehensive solutions for
concrete disease control

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Fast concrete is an ultra-early-strength concrete structure repair material formulated with cement as the basic binding agent, high-strength material (quartz sand) as the main aggregate, supplemented by polymer adhesive powder, high-efficiency water-reducing agent, early-strengthening agent, expanding agent, and anti-segregation and other substances. This product has the characteristics of good self-flow, fast hardening, early strength, high strength, no shrinkage, micro-expansion; non-toxic, harmless, non-aging, no pollution to water quality and the surrounding environment, good self-tightness, rust-blocking and so on.

I. Performance index

JGIT 336-2011 Polymer Cement Mortar for Repairing Concrete Structures

Product name	2h compressive strength	24h compressive strength	28 days compressive strength	Usable time after mixing with water	Final setting time
Fast concrete	≥20Mpa	≥30Mpa	≥50Mpa	Approx. 30min adjustable	About 60min can be adjusted

Remark 1:It can be used after mixing with water, and it needs 2200KG dry material to pour 1 cubic meter.

II. Scope of application

- ◆ Quick Repair of Bridge Expansion Joints
- ◆ Rapid repair of broken slabs on cement concrete pavements

III. Construction process



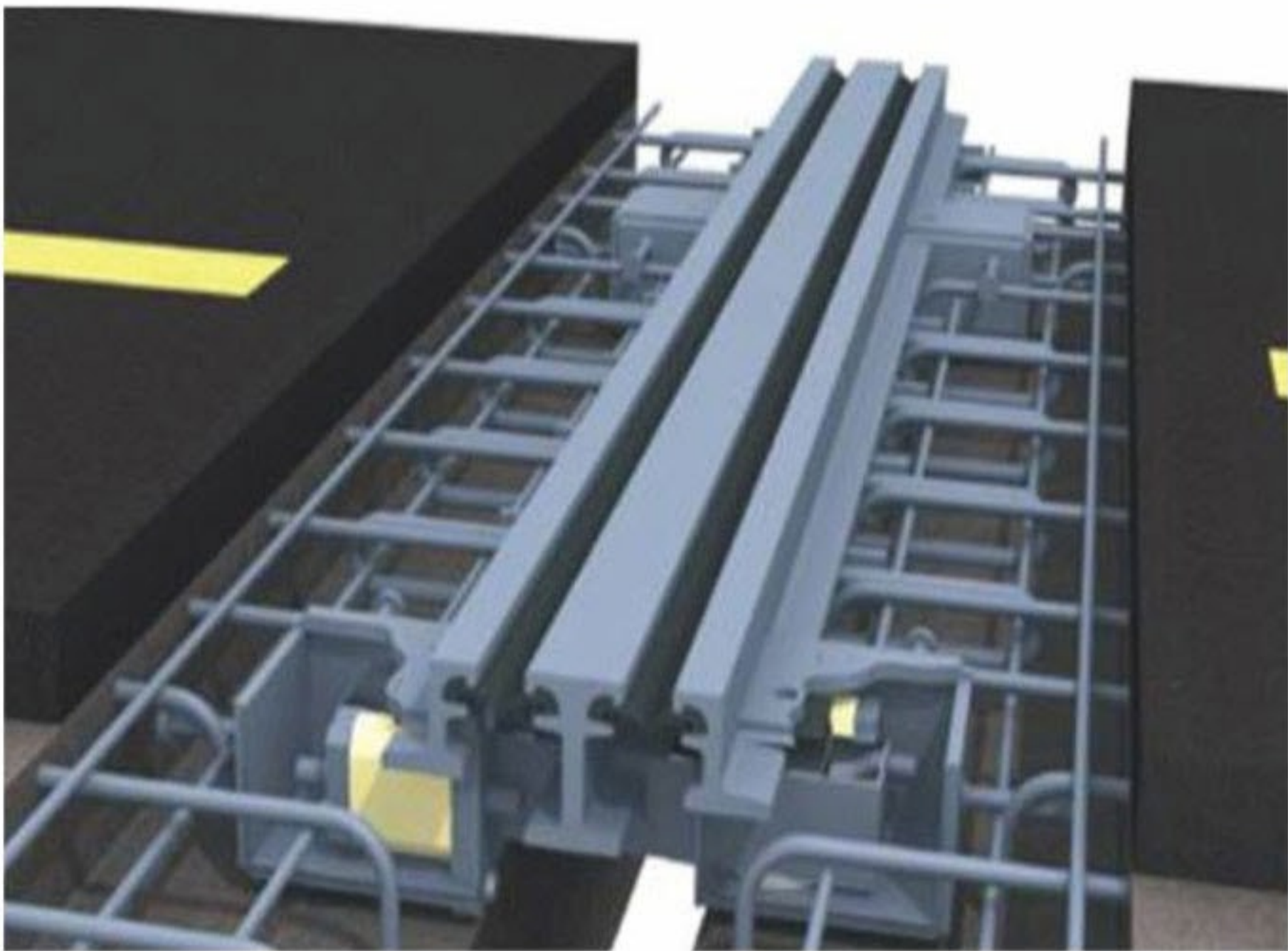
A. Base surface wetting: 2~3 hours before pouring, the base surface should be fully wet with water and remove water; in winter construction, the base surface should be fully wet with warm water not exceeding 65°C before pouring and remove water.

B. supporting mold: for the cement concrete pavement panel to be repaired in the middle of the road, can be used around the edge of the board as a template; for the cement concrete pavement panel to be repaired in the side of the road, its three edges can be used around the edge of the board as a template, the edge of the wooden mold should be erected or steel molds, and take measures to prevent leakage of slurry. For the concrete structure of serious damage to the part, should support the fixed formwork and take measures to prevent leakage of slurry.

C. Preparation and mixing: according to the number of site pouring and pouring speed, put the repair material into the forced mortar mixing machine manually, after dry mixing for 10s, weigh the amount of water according to the product regulations, and then mix it with water twice: the first time to add 2/3 water, mixing for 30s; the second time to add 1/3 water, mixing for 150s. After mixing, the repair material should be left to stand for 2-3mins, and then pour it again after the air bubbles disappeared. In winter construction, warm water not exceeding 65°C should be used for mixing, and the pouring temperature should be above 10°C.

D. Pouring: Use the pouring container to pour slowly and evenly to make it dense, and avoid the phenomenon of hollow drum when pouring. After pouring, smooth the top surface of the repair material. The time from the beginning to the end of pouring of the repair material shall not exceed 30min, and the repair material whose time is exceeded or whose fluidity does not meet the requirement of pouring shall not be used.

E. Nurturing: cover the top surface of the repair material with plastic strips, and then use straw bags to cover the plastic strips completely to keep wet. At room temperature, 2~3h after the end of sustenance, or according to the structural strength requirements and reserved specimen strength test results to decide whether to end the sustenance. Insulation measures should be used in winter, and the sustenance period should be extended appropriately.



3. Precautions

- ◆ Drinking water should be used for mixing repair material.
- ◆The machines and tools after construction should be cleaned with water in time for the next use.
- ◆ The template used for repairing the bridge structure should adopt brand-new template to ensure the beautiful appearance after demolding.
- ◆ Comply with the requirements of the product to choose suitable water consumption to control the degree of collapse and collapse extension degree.
- ◆ Rainproof measures should be taken during transportation of materials.
- ◆ It is strictly prohibited to mix any additives and external adulterants in the material when it is used on site.
- ◆Materials should be stored in a cool and dry place with a shelf life of 6 months, and can be used only after passing the re-inspection beyond the shelf life.

IV. Packaging and storage

- ◆ Packed in composite kraft paper bag, net weight 50kg/bag, shelf life of 6 months.
- ◆ It should be stored in dry and ventilated room, with the bag sealed, and pay attention to moisture-proof and frost-proof.