

Bearing Special Structural Adhesive



HM-Q2Z bearing special structural adhesive is a two-component high thixotropic paste structural adhesive, which is mainly used for repair and leveling of surface defects of the bridge bearing pad. Its main purpose is to ensure that the surface of the supporting bearing pad is flat and rough. It ensures that the lower surface of the bearing is completely resting on the supporting cushion stone, eliminating the phenomenon of local edge emptying. At the same time, through the levelling, the supporting bearing pad at the ends of each girder (beam) and the top surface of the supporting bearing pad on the same abutment are at the correct elevation according to design drawings.

▲▲ Product Advantages

- Excellent thixotropic properties, static stacking height of 5cm or more, could be customized according to specific construction project requirements. The highest static stack height can reach 10cm, to meet the defect concrete repair depth.
- The use of nano-material technology, this product has multi-dimensional mesh structure that achieves a good thixotropic effect whether it is vertical side construction, the overhead top surface construction, the adhesive never sags.
- The colloidal curing speed is moderate, the long operation time makes the construction easy.
- Advanced high-speed dual-planetary power mixing equipment, uniform material dispersion, with vacuum treatment bubbles are avoided, no delamination, no dripping/sagging, more stable performance, longer storage time (shelf life).
- High effective ingredient, low density, which results in saving more than 30% of adhesive volume.

▲▲ Product Characteristics

- Good thixotropic properties, easy to apply.
- High early strength, shorter curing period, and the waiting time for the support after the bridge is lifted is reduced, which greatly improves the construction efficiency and equipment use turnover.
- It cures within wide range of curing temperatures. Within $-5^{\circ}\text{C} \sim 40^{\circ}\text{C}$ ambient temperature it can fully cure. It has excellent characteristics for outdoor applications, e.g. bridge, and can be used for construction in northern cold regions.
- After curing, HM-Q2Z exhibits excellent performance, high compressive strength, high bond strength, good toughness and impact resistance, very durable, and high resistance to chemicals (acid, alkali and salt, etc.), and high erosion performance.

▲▲ Application Range

Repairing and leveling of bridge bearing cushion stone

▲▲ Product Parameters

Model	HM-Q2Z Bearing Special Structural Adhesive
Appearance	Part A: Sticky paste
	Part B : Sticky paste
Mix Ratio	A:B=2:1
Operate Time (25°C, min)	< 50
Touch Dry Time (25°C, min)	120
Compressive Strength (MPa)	≥ 65
Bending Strength (MPa)	≥ 50

▲▲ Operating Procedures

- Support the surface of the bearing pad: The surface of the bearing pad shall be free of oil, sand, and dust, adhesive is then applied to the surface in layer of 1~2mm thick, then smoothed with a grinder, and the dust shall be blown or vacuumed with compressed air after polishing, and the surface shall be wiped with cotton cloth and acetone. The cleaned surface shall be kept dry.
- Mixing adhesive: The components A & B of the HM-Q2Z bearing special structural adhesive shall be mixed by weight at a ratio A:B = 2:1. Use a putty knife to mix the two components. It is best to mix in one direct to avoid forming air bubbles, until a uniform color is achieved. The amount of mixed adhesive at any one time is just enough to be applied with the application time (pot life), so as to avoid waste.
- Application of Adhesive: The mixed adhesive shall be applied to the concave portion of the surface of the supporting bearing pad. It shall be repaired and filled using a putty knife to minimize the height difference. The support on the same pier or abutment shall be covered to the top surface of the bearing pad, to the same required elevation.
- Curing: After the application of the adhesive, it has to be cured. The curing time depends on the on-site temperature. It is advisable to dry them manually, (usually at 25°C, for not less than 2 hours) before they can be placed on the construction site.

▲▲ Transportation and Storage

- This product should be kept sealed and stored in a dry and clean storage space of ambient temperature between -5 °C and 40 °C. In order to prevent damage, do not store outdoor under direct sunlight or under direct rain.
- A & B components should be kept separately. Shelf life is 12 months at room temperature (25 °C). Product should be tested if exceeded the shelf life. If the physical and mechanical properties after 12 months meet the standard requirements, then it could be used.
- These products are not inflammable, explosive, toxic, or dangerous cargoes. They could be transported with general transportation cargo. The epoxy containers should not be damaged, exposed to direct sunlight or rain, and should not be tilted or stored upside-down during transportation.



▲▲ Package

The A and B components of this product are packed in separate containers. Group A is 20kg/container and Group B is 10kg/container.

▲▲ Points for Attention

- The mixed Components A & B adhesive shall not be used beyond its pot life (application period).
- Unused A & B components of the adhesive, please seal the containers well, don't expose to air for a long period of time.

▲▲ Safety Measures

- Construction personnel should take safety protection measures (such as wearing masks, gloves, goggles, etc.), on-site attention to fire prevention measures, and maintain well-ventilated work space.
- If accidentally got in touch with skin or clothing, immediately wipe clean with acetone and rinse with a large amount of water.
- If accidentally swallowed or splashed onto eye, please seek immediate medical attention.

