

KeyFix106 WE

Two-Component Epoxy Acrylate
Anchoring Resin for Wet Applications



Product Description	KeyFix106 WE is a two-component, epoxy acrylate-based, moisture-tolerant, thixotropic, and rapid-curing structural anchoring resin. It is specifically engineered for high-performance anchoring and structural bonding in both dry and wet environmental conditions.
Areas of Application	• Post-installed rebar doweling connections (starter bars) in concrete structures. • Anchoring of threaded rods, reinforcing bars (rebar), and steel components in concrete, solid masonry, hollow brick, and natural stone. • Fixing of injection packers, specialized structural apparatus, and prefabricated structural elements. • Installation of structural bolts, pins, central heating/ventilation ducting, brackets, and pipework fittings. • High-strength structural bonding of all types of construction materials.
Advantages	• Ultra-rapid curing mechanism with swift mechanical strength development. • Thixotropic (non-sag) pasty consistency, enabling effortless application in overhead and vertical orientations. • Moisture-tolerant formula; easily applied and ensures high bond strength even on damp or wet substrates. • Provides outstanding anti-corrosion protection for embedded metal components. • Superior chemical, mechanical, and environmental resistance. • User-friendly, time-saving, and highly efficient cartridge-based application.
Application Instructions	Substrate Quality: The application substrate must be free of all kinds of dust, dirt, weak and loose particles, cement grout residues, oil, and grease, and it must be dry. The concrete substrate must be clean, strong, and possess sufficient compressive strength. Surface and Ambient Temperature Limits: Min. +5°C / Max. +35°C. Surface Preparation: The application surface should be cleaned using professional methods such as applying compressed air to maintain maximum adhesion strength. Application Method / Equipment: Drill the hole to the required diameter and depth using a rotary hammer drill. The hole diameter and depth must be selected according to the size of the anchor element to be used. The opened hole must be cleaned thoroughly, starting from the bottom upward, using a round steel wire brush and oil-free compressed air. No foreign matter such as dust, dirt, or oil should remain inside the cavity. Open the cartridge cover by turning and removing it, then install the static mixing nozzle securely. Place the cartridge into a high-quality professional gun and start applying. Crucial Requirement: Press the trigger until the two separate components in the cartridge flow completely uniformly out of the static mixer. Do not use or inject this first mixture out of the gun into the anchoring hole. Insert the static mixer tip to the very bottom of the hole. Slowly pull out the cartridge while injecting the resin, beginning at the bottom of the cavity. Ensure there are absolutely no air gaps or voids inside. Fill the hole approximately 2/3 full. Insert the anchoring element into the hole by rotating it. Once a small amount of excess resin has come out, the anchor element must be properly placed in the hole within the resin's gelling period. Strict Restriction: During the hardening and curing period, the anchoring element must never be moved, disturbed, or loaded. For deep-hole anchoring applications, specialized extension tips can be used to maintain bottom-up injection.

Application Notes & Equipment Maintenance

- Pot Life & Cleaning Windows: Gel/working time is approximately 8 minutes at +20°C, with an effective cleaning window of ~10 minutes.
- When anchoring into hollow materials (such as hollow bricks or blocks), a suitable mesh perforated sleeve (anchor sieve) must be used to fix the anchoring material and ensure proper structural interlocking.
- When the application is temporarily interrupted, the static mixer tip may be left on the cartridge after the pressure in the sprayer gun has been fully drained. If the resin has hardened inside the static mixer, a new mixing nozzle insert must be fitted before resuming work.
- When storing an opened cartridge, remove the static mixer by rotating it, clean the cartridge mouth thoroughly with a clean, dry cloth, and close the lid tightly.
- Equipment Maintenance: Instruments and application gear should be cleaned with Chelfix Thinner immediately after use. The hardened epoxy mortar cannot be dissolved chemically and can only be removed through mechanical abrasion.

Health & Safety Precautions

- Contains Styrene. Flammable/Combustible mixture. Keep away from heat, open flames, sparks, and ignition sources.
- Harmful if inhaled. Ensure adequate, high-volume ventilation throughout the application and curing stages. Do not breathe vapors or dust. Use only in well-ventilated areas.
- Causes skin irritation and potential eye irritation/damage. Always wear approved protective workwear, including safety goggles, masks, and chemical-resistant gloves suitable for worker health. Hand protection creams may be applied before starting work.
- In case of direct contact with skin or hands, wash immediately with generous amounts of soap and fresh water.
- In case of contact with eyes, flush immediately with copious amounts of clean, warm water and consult a doctor immediately.
- Keep securely stored out of reach of children and unauthorized personnel.

Technical Data

Full Cure Period:	7 days
- Gel Time / Recoatability	1 hour
- Service Temperature Range	0°C to +80°C
- Compressive Strength (7 days)	≥ 70 N/mm ² (Test Standard: TS EN 196-1)
- Adhesion Strength to Concrete (7 days)	≥ 3.0 N/mm ² (Failure mode: Concrete failure / Test Standard: TS EN 4624)
- Flexural Bending Strength (7 days)	≥ 20 N/mm ² (Test Standard: TS EN 196-1)
- Displacement / Extraction Resistance	≤ 0.6 mm (Under 75 kN continuous load / Test Standard: EN 1181)
- Tensile Load Creep Resistance	≤ 0.6 mm (After 3 months under 50 kN continuous load / Test Standard: EN 1544)
- Compliance Standard	Conforms to TS EN 1504-6 structural anchoring standards.
- Packaging	410 ml co-axial cartridges.
- Shelf Life & Storage	12 months from production date when stored unopened in original, sealed packaging in dry conditions away from direct sunlight.

Technical data are approximate values obtained from the laboratory study of Chelfix Construction Chemicals for finished products obtained at +20°C air temperature and 50% relative air humidity.

Temperature and Curing Time

Substrate / Ambient Temperature	Workability Time	Curing Time
-5°C	50 min.	90 min.
+5°C	21 min.	50 min.
+15°C	6 min.	35 min.
+25°C	3 min.	30 min.
+35°C	2 min.	25 min.