BOSSONG

COL MIX EPOX

TECHNICAL DATA SHEET

UPDATE 09-2026



COL MIX EPOX

POURABLE EPOXY ADHESIVE

STORAGE AND CONSERVATION

24 MONTH

+30°
+10°



BCR 5K COL MIX EPOX

cod. 747820 | 4 Kg + 1 Kg

gray color



BCR 5K COL MIX EPOX RAL 1015

cod. 747822 | 4 Kg + 1 Kg

wood color



BCR 1,25K COL MIX EPOX

cod. 747804 | 1 Kg + 0,25 Kg

gray color



COL MIX EPOX is a fluid, solvent-free, two-component epoxy adhesive filled with quartz aggregates. It is ideal as an adhesion promoter for composite concrete pours.

APPLICATIONS

The product meets the requirements of standard EN 1504-4: products and systems for the protection and repair of concrete structures – Part 4: Structural bonding.

The standard defines the performance requirements to be met, including durability, for two main types of applications in accordance with the structural strengthening principle (SS Principle 4):

- Bonding of reinforcement plate (bonded plate reinforcement), method 4.3.

- Bonding hardened concrete to hardened concrete, bonding between existing concrete and new concrete cast, method 4.4.

The product meets requirementf of stndard EN 1504-6, can be used for anchoring cramps and anchor bolts, as well as on timber structures.

SUBSTRATE PREPARATION

Proper preparation of the surfaces to be bonded is essential for optimal adhesion to the substrate and for the perfect functioning of the product.

Cementitious surfaces must be sound, clean, and free from bond-inhibiting substances such as form-release agents, cement laitance, grease, oil, etc. Cleaning may be carried out by sandblasting or, alternatively, by mechanical brushing or hydro-blasting, followed by the removal of dust using compressed air.

Ferrous metal surfaces must be free of rust, oil, paint, and mill scale. Use white metal blast cleaning to grade Sa 2½ (Swedish Standard) to remove such residues. Apply the product before oxidation begins again.

Wooden substrates must be prepared by sanding, sandblasting, or brushing.

Stone and brick substrates must be sound and cohesive prior to application.

The surfaces must be dry; slight moisture is tolerated for concrete substrates.

If the product is used for anchoring anchor bolts or anchors, the hole diameter must be at least 4 mm larger than the diameter of the anchor bolt. The holes must be clean and free of dust and any bond-inhibiting substances such as oil, grease, cement slurry, etc.

Coach screws and anchor bolts must be free of oil, grease, etc.

MIXING

Homogenize the contents of the Component B container using a spatula and pour the entire amount into the Component A container. Mix the two components using a low-speed mixer until the mixture achieves a uniform color. To ensure optimal results, it is crucial to use the components according to the exact mixing ratios specified for the original packaging—specifically, a weight ratio of A:B = 4:1. To avoid errors, it is always recommended to mix the entire contents of a Component A container with the entire contents of a Component B container.BCR COL MIX EPOX may be diluted with a specific solvent by up to 5% only when the product is used as an adhesion promoter for concrete bonding joints.

APPLICATION PROCEDURES

COL MIX EPOX is applied by pouring directly from the original packaging.

When used as an adhesive for construction joints, the fresh concrete must be poured onto the resin while it is still uncured, adhering to the following recoating times:

- 10°C within 2 - 2,5 hours
- 20°C within 1 - 1,5 hours
- 30°C within 45 - 60 min

When used as an adhesive for joints between precast concrete elements or similar components, the product is applied using a spatula or stiff brush and must not exceed a thickness of 2 mm.

The average consumption is approximately 1.4 kg/m² for a thickness of 1 mm, depending on the evenness of the substrate.

To ensure good adhesion, it is recommended to apply the product to both surfaces to be bonded.

After applying the product, join the parts to be bonded and hold them steady until the adhesive has fully cured.

To act as a bonding agent, the product should be poured into the holes to a level of approximately two-thirds of the hole's depth. Once the adhesive has been poured, the bar must be inserted using a rotating motion.

The product does not require special precautions when applied at ambient temperatures between 10°C and 35°C.

During winter months, store the product in a warm place before use and do not use it at ambient temperatures below 5°C.

During particularly hot summer periods, store the product away from direct sunlight and try to carry out the work during the cooler hours of the day to avoid rapid hardening.

EQUIPMENT WASHING

For cleaning metal tools, it is recommended to use solvents before the resin hardens.

TECHNICAL SPECIFICATIONS

Specific weight (A+B) UNI EN ISO 1183-1	Kg/dm^3	1,45±0,05
Working time UNI EN ISO 9514 a 5°C	minutes	50
Working time UNI EN ISO 9514 a 20°C	minutes	40
Working time UNI EN ISO 9514 a 35°C	minutes	30
Open time UNI EN 12189 a 20°C	minutes	75
Flow test UNI EN 1799	mm	NPD
Flexural modulus of elasticity EN ISO 178	MPa	≥ 6000
Modulus of elasticity in compression EN 13412	MPa	≥ 7000
Compressive strength UNI EN 12190	MPa	≥ 90
Flexural-tensile strength UNI EN ISO 178	MPa	> 40
Shear strength EN 12615	MPa	>10 Concrete failure
Glass transition temperature UNI EN 12614	°C	62
Linear shrinkage UNI EN 12617-1	%	0,00
Adhesion per EN 12636 and EN 12615 (bonding of hardened concrete to hardened concrete and bonding of fresh concrete to hardened concrete)	-	Concrete failure
Determination of durability after thermal and humidity cycles (UNI EN 13733)	-	Concrete failure
Linear thermal expansion coefficient UNI EN 1770	1 / °C	< 50 x 10^{-6}
Reaction-to-fire classification	-	NPD
Bond strength to steel by direct tension UNI EN 12188 (UNI EN 1542)	MPa	> 16
Direct tensile bond strength to concrete (UNI EN 1542)	MPa	> 3 Concrete failure
Steel-to-steel bond: inclined plane shear test (UNI EN 12188)	MPa	angle di 50° ≥ 100 angle di 60° ≥ 100 angle di 70° ≥ 110
Ultimate bond strength on C20/25 concrete as an anchor (M8–M30 bars)	MPa	11,0
Adhesion to wood (Norway spruce) ASTM D 4541	-	wood failure

INSTALLATION PROCEDURE FOR BONDING CLS/CLS

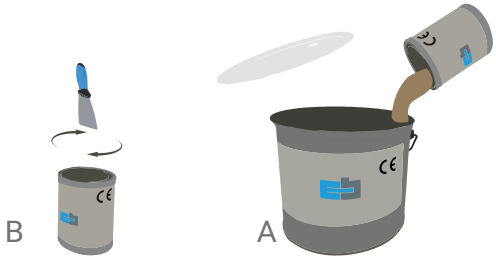
1. SUBSTRATE PREPARATION

Proper surface preparation is essential for optimal adhesion to the substrate and for the perfect functioning of the joint. Cementitious surfaces must be free of bond-breaking agents and subsequently cleared of dust using compressed air. The surfaces must be dry.



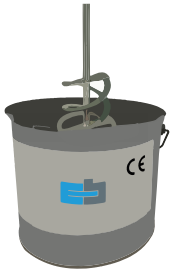
2. JOIN THE COMPONENTS

Homogenize the container of Component B with a spatula and pour the entire contents into the container of Component A.



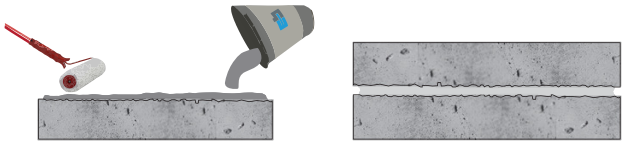
3. MIX THE RESINS

Mix the two components using a low-speed mixer until the mixture has achieved a uniform color.



4. POUR THE RESIN AND CAST THE NEW LAYER

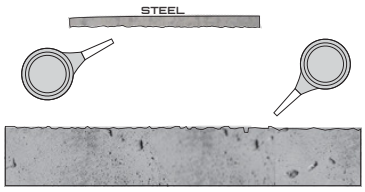
Pour the mixed resin onto the surface. The resin can be spread using a roller.
Pour the new layer of concrete before the resin hardens.



INSTALLATION PROCEDURE FOR ADHESIVE PLATE

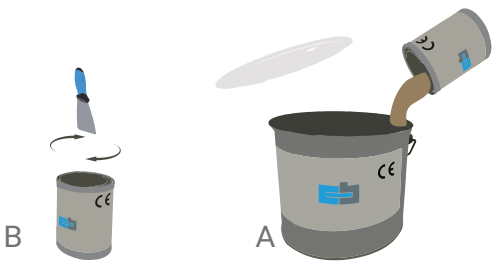
1. SUBSTRATE PREPARATION

Proper surface preparation is essential for optimal adhesion to the substrate and for the joint to function perfectly. Ferrous metal surfaces must be free of rust, oil, paint, and mill scale. Use white metal blast cleaning to grade Sa 2½ (Swedish Standard) to remove such residues. Surfaces must be dry.



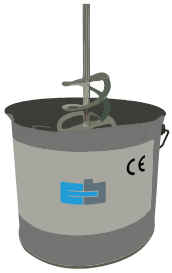
2. JOIN THE COMPONENTS

Homogenize the container of Component B with a spatula and pour the entire contents into the container of Component A.



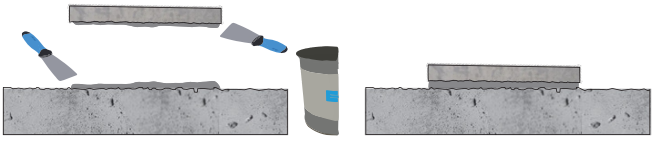
3. MIX THE RESINS

Mix the two components using a low-speed mixer until the mixture has achieved a uniform color.



4. APPLY THE RESIN AND JOIN THE TWO LAYERS

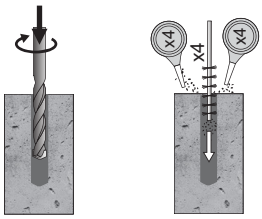
Use a spatula or brush to spread the product onto both surfaces. Join the two elements and allow the product to cure.



INSTALLATION PROCEDURE FOR BAR GROUTING

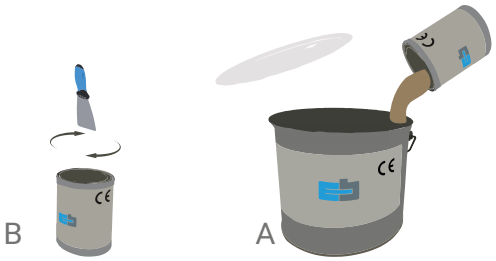
1. DRILL AND CLEAN THE HOLE

Use a rotary hammer drill and always ensure the hole is perpendicular. Blow out the hole using a hand pump or air compressor to completely remove dust and debris, then clean the sides with a wire brush and blow it out again until the hole is completely clean.



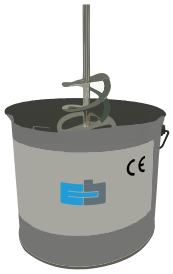
2. JOIN THE COMPONENTS

Homogenize the container of Component B with a spatula and pour the entire contents into the container of Component A.



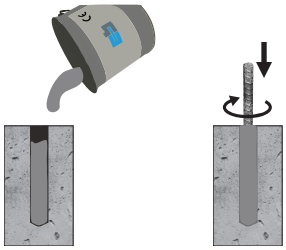
3. MIX THE RESINS

Mix the two components using a low-speed mixer until the mixture has achieved a uniform color.



4. POUR THE RESIN

Pour an amount of resin into the hole equal to approximately two-thirds of its depth. Then, insert the metal element using a twisting motion.



NOTE: The technical and installation data provided in this document are subject to revision and updates. This version supersedes and replaces all previous versions. It is the customer's responsibility to verify the suitability of Bossong products for the intended application and to ensure that job site conditions, as well as usage and disposal procedures, comply with applicable regulations. To access the most up-to-date technical documentation, please visit www.bossong.com or contact our Technical Department.