BOSSONG

COL MIX EPOX TIXO

TECHNICAL DATA SHEET

UPDATE 09-2026



COL MIX EPOX TIXO

THIXOTROPIC EPOXY ADHESIVE

EN 1504-4

STORAGE AND CONSERVATION

24 MONTH

+30°
+10°



BCR 5,5K COL MIX EPOX TIXO

cod.747828 | 4 Kg + 1,5 Kg

gray color



BCR 1,375K COL MIX EPOX TIXO

cod.747825 | 1 Kg + 0,375 Kg

gray color





COL MIX EPOX TIXO is a solvent-free, thixotropic, two-component epoxy adhesive filled with quartz aggregates. It is ideal for bonding substrates of different types, such as concrete and steel.

APPLICATIONS

The product meets the requirements of standard UNI 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 main fields of application can be:

-Structural bonding between dissimilar materials such as concrete, steel, masonry, and wood;

- Bonding of precast reinforced concrete segments;

- Repair of surface concrete imperfections such as edges and pitting;

- Bedding of mechanical devices, such as bridge bearings.

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.

MIXING

Don't begin mixing the two components of COL MIX EPOX TIXO if the ambient and/or substrate temperatures are below +5°C or above +35°C.

Homogenize Component A using a low-speed mixer with a mixing paddle. Homogenize Component B using a spatula. Add Component B to Component A. It is crucial that components A and B are dosed according to the 4:1.5 weight mixing ratio indicated on the packaging. To avoid errors, it is always recommended to mix the entire contents of a container of Component A with the entire contents of a container of Component B. Mix the two components using a low-speed mixer with a mixing paddle until a homogeneous grey mixture is obtained.

APPLICATION PROCEDURES

COL MIX EPOX TIXO is applied using a smooth or notched trowel. The ideal application thickness for structural bonding to concrete is 3 mm, achieved by applying 1.5 mm to each of the surfaces to be bonded.

The average consumption is approximately 2.0 kg/m², depending on the evenness of the substrate, assuming a thickness of about 1.5 mm.

After application, join the surfaces to be bonded and hold them steady until the adhesive has fully cured.

Don't mix COL MIX EPOX TIXO with solvents or thinners to modify its viscosity. For this purpose, in the event of low temperatures, it is sufficient to heat component A to 40°C.

EQUIPMENT WASHING

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

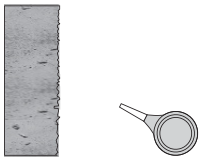
TECHNICAL SPECIFICATIONS

Specific weight (A+B) UNI EN ISO 1183-1	Kg/dm^3	1,35±0,01
Working time UNI EN ISO 9514 a 5°C	minutes	40
Working time UNI EN ISO 9514 a 20°C	minutes	30
Working time UNI EN ISO 9514 a 35°C	minutes	20
open time UNI EN 12189 a 5°C	minutes	55
open time UNI EN 12189 a 20°C	minutes	50
open time UNI EN 12189 a 35°C	minutes	35
UNI EN 1799 creep test (up to an adhesive thickness of 4 mm)	mm	< 1
Flexural modulus of elasticity EN ISO 178	MPa	≥ 4300
Modulus of elasticity in compression EN 13412	MPa	≥ 4500
Compressive strength UNI EN 12190	MPa	≥ 50 3g ≥ 70 7g
7-day flexural strength UNI EN 12190	MPa	> 30
Flexural strength UNI EN ISO 178	MPa	> 42
Glass transition temperature UNI EN 12614	°C	52
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
Determination of electrical resistance - UNI EN 1081	GΩ	≥ 50
Linear thermal expansion coefficient UNI EN 1770	1 / °C	< 80 x 10^{-6}
Reaction-to-fire classification	-	D s2 d0
Bond strength to steel by direct tension UNI EN 12188 (UNI EN 1542)	MPa	> 20
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° ≥ 70 angle di 60° ≥ 75 angle di 70° ≥ 90

INSTALLATION PROCEDURE FOR BONDING CLS/CLS

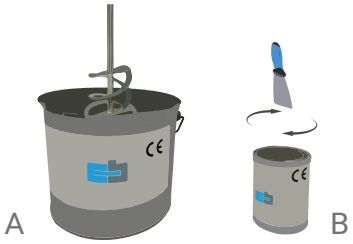
1. SUBSTRATE PREPARATION

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.



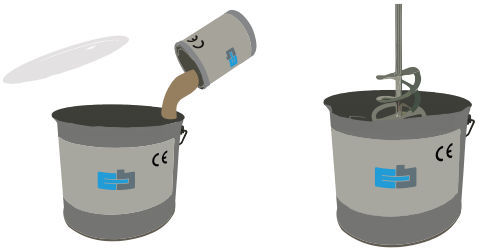
2. JOIN THE COMPONENTS

Homogenize Component A using a whisk mixer at low speed. Homogenize Component B using a spatula.



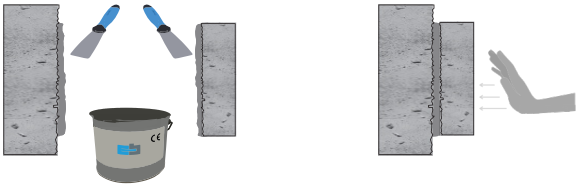
3. MIX THE RESINS

Add component B to component A. Mix the two components using a low-speed paddle mixer until a homogeneous grey mixture is obtained.



4. APPLY THE RESIN AND JOIN THE TWO LAYERS

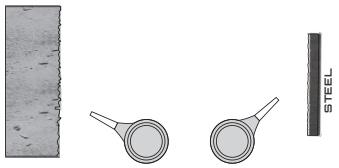
Use a spatula to spread the product onto the surfaces of the two elements. Join the new concrete layer and hold the two pieces steady until the adhesive has fully hardened.



INSTALLATION PROCEDURE FOR ADHESIVE PLATE

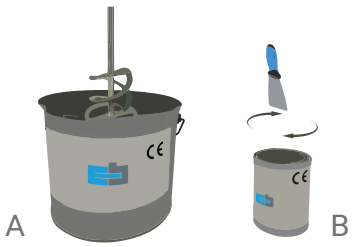
1. SUBSTRATE PREPARATION

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.



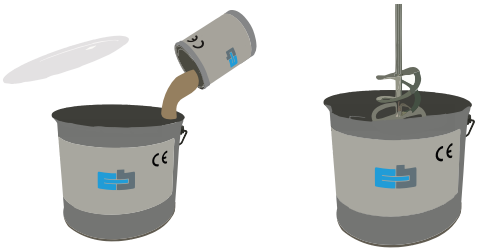
2. MIX THE TWO COMPONENTS

Homogenize Component A using a whisk mixer at low speed. Homogenize Component B using a spatula.



3. MIX THE RESINS

Aggiungere il componente B nel componente A. Miscelare i due componenti con un miscelatore a frusta a bassa velocità fino ad ottenere un impasto omogeneo di colore grigio.



4. APPLY THE RESIN AND JOIN THE TWO LAYERS

Use a spatula to spread the product onto both surfaces. Join the two elements and hold them steady until the adhesive has fully cured.



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.