

# Epofill

Hyperfluid epoxy system for the injection of cracks and grouting on concrete.

Epofill is compliant with the performance requirements of standard EN 1504-5 for injection products and standard EN 1504-6 for anchoring products.



1. Low viscosity
2. Rapid hardening
3. For the injection of cracks on concrete
4. For precision anchoring

## Rating 1

- × VOC Low Emission
- × Water Based
- × Solvent  $\leq 15$  g/kg
- × Low Ecological Impact
- ✓ Health Care



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## Areas of application

### → Intended use:

- Monolithic repair of cracked concrete elements by low pressure injection.
- Sealing of cracks, bonding and structural strengthening.
- Precision fastening and structural anchoring of metal elements on concrete.
- Repair of debonding facade elements, coverings and architectural elements.
- Protective injection of post-tension cables.
- Sealing of cracks on cement-based screeds.

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## Instructions for use

### → Preparation of substrates

Before applying Epofill it is necessary to:

- clean the surface from dust, oil and grease;
- remove loose debris or flaky parts that are not perfectly anchored until a clean, highly cohesive substrate is obtained.

### → Preparation

Epofill is prepared by mixing component A with component B (preset ratio 2:1 in the packagings) with a low-rev, mechanical stirring device (< 500 r./min.), until a uniform semi-transparent liquid is obtained. Workability times may vary according to the quantity of the mixed paste and the temperature of the environment and substrate: the higher the temperature or the larger the mixture, the lower the workability time. To obtain a longer workability time in case of high temperatures, it is advisable to cool the components individually before mixing them. Similarly, in case of low temperatures, it is advisable to maintain both components at a temperature of not less than +10 °C, prior to application.

### → Application

- To strengthen cracked structures drill a series of holes at the sides of the crack intercepting it. Flare the crack with a sander; remove the dust and then grout the crack with Geolite Gel while simultaneously inserting injection tubes into the previously drilled holes. Once Geolite Gel has hardened, blow compressed air into the system to check that the holes are in communication. Then, inject Epofill using specific tools, starting from the lowest injection tube; when the resin comes out of the topmost tube, close the one used for injection and repeat the procedure again starting from the control injection tube, until the crack is completely sealed.
- For grouting of bars, fill the clean hole previously made with Epofill and insert the bar with a rotating movement.
- To bond metal elements, inject Epofill thanks to tubes previously installed and fixed with Geolite Gel.

### → Cleaning

Residual traces of Epofill can be removed from tools with solvents before the product hardens.

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## Certificates and marks



# Abstract

Supply and laying of a hyperfluid epoxy system, such as Epofill by Kerakoll, for the injection of cracks, grouting of reinforcing bars on concrete and repair of debonding facade elements by manual casting or machine injection after adequate preparation of the substrates. GreenBuilding Rating 1, CE-marked and compliant with the performance requirements of Standard EN 1504-5 for injection and standard EN 1504-6 for anchoring; according to principles as defined by standard EN 1504-9.

## Technical Data compliant with Kerakoll Quality Standard

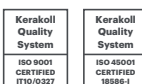
Appearance	part A: transparent liquid, part B yellow-coloured liquid	
Volumetric mass	part A 1.100 kg/m <sup>3</sup> – part B 1.050 kg/m <sup>3</sup>	
Shelf life	≈ 12 months from production in the original sealed packaging	
Warning	protect from frost, avoid direct exposure to sunlight and sources of heat	
Pack	part A: 0.66 kg bucket / part B: 0.33 kg bottle	
Mixing ratio	Part A : Part B = 2 : 1	
Viscosity of the mixture	≈ 335 mPa · s (rotor 2 RPM 50)	Brookfield method
Density of the mixture	≈ 1100 kg/m <sup>3</sup>	
Pot life (1 kg):		
- at +5 °C	≥ 80 min.	
- at +21 °C	≥ 30 min.	
- at +30 °C	≥ 10 min.	
Temperature range for application	from +5 °C to +35 °C	
Coverage	≈ 1.1 kg/dm <sup>3</sup> of cracks to be injected	

Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

Performance				
HIGH-TECH				
Performance characteristic	Test Method	Requirements foreseen by EN 1504-5		Performance Epofill
Adhesion	EN 12618-2	Tensile strength	cohesive failure in the substrate	value exceeded
Shear strength	EN 12618-3	Shear strength	monolithic failure	value exceeded
Volumetric shrinkage	EN 12617-2	percentage shrinkage	< 3%	< 3%
Glass transition temperature	EN 12614	≥ +40 °C		+45 °C
Workability when injecting	EN 1771	injection time in 0.2 mm cracks	Dry > 7 N/mm <sup>2</sup>	> 7 N/mm <sup>2</sup>
			Damp > 7 N/mm <sup>2</sup>	> 7 N/mm <sup>2</sup>
Durability	EN 12618-2	resistance to frost-thaw cycles	cohesive failure in the substrate	
			value exceeded	
	Test Method	Requirements of EN 1504-6		Performance Epofill
Pull-out strength of steel rebars (movement in mm in relation to a 75 kN load)	EN 1881	≤ 0.6 mm		0.41 mm
Creep under load (movement in mm under a continuous load of 50 kN after 3 months)	EN 1544	≤ 0.6 mm		0.02 mm
Glass transition temperature	EN 12614	≥ +45 °C		+45 °C
Reaction to fire	EN 13501-1			Euroclass E

## Warning

- Product for professional use
- abide by any standards and national regulations
- use at temperatures between +5 °C and +35 °C
- apply on dry substrates
- do not apply on dirty or loose surfaces
- adjacent surfaces must be protected so as to avoid smears and marks
- clean tools immediately after use with solvents (ethyl alcohol, toluene, xylene)
- always use protective gloves and eyewear both during mixing and during application
- avoid any contact with the skin
- if necessary, ask for the safety data sheet
- for any other issues, contact the Kerakoll Worldwide Global Service +39 0536 811 516 - [globalservice@kerakoll.com](mailto:globalservice@kerakoll.com)



The Rating classifications refer to the GreenBuilding Rating Manual 2012. This information was last updated in October 2023 (ref. GBR Data Report - 10.23); please note that additions and/or amendments to this information may be made over time by KERAKOLL Spa; for the latest version, see [www.kerakoll.com](http://www.kerakoll.com). KERAKOLL SpA shall therefore be liable for the validity, accuracy and updating of information provided only when taken directly from its institutional website. The technical data sheet given here is based on our technical and practical knowledge. As it is not possible for us to directly check the conditions in your building site and the execution of the work, this information represents general indications that do not bind Kerakoll in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.