

Tetra Fix Crystal

Elastic hybrid adhesive sealant for all building materials.

Tetra Fix Crystal is the perfect product for invisible sealing and bonding thanks to its crystal-clear transparency.



Rating 3

1. Multi-purpose
2. Quick drying
3. Overpaintable
4. Elastic
5. Adheres to all substrates, including damp ones
6. Crystal-clear for invisible sealing

- × Regional Mineral $\geq 30\%$
- ✓ VOC Low Emission
- ✓ Solvent ≤ 5 g/kg
- × Low Ecological Impact
- ✓ Health Care

Areas of application

→ Use

Elastic sealing-bonding of various materials for building.

Tetra Fix Crystal ensures long-term adhesion to any type of substrate, including damp ones, and even under dynamic loads, of:

- various building components;
- prefabricated elements
- plinths, thresholds and sills
- stair coverings;
- board strip;
- panels in general;
- sealing of expansion joints, cracks and fissures, structural elements, door and window frames, metal roofs, sheet metalworks, joints of all kinds.

Suitable for internal and external use in contact with the most common building materials such as:

- cement-based substrates (plaster/render, mortar, concrete);
- ceramic tiles, terracotta, bricks;

- excellent adhesion on metal substrates:

- steel - raw, stainless, galvanised, pre-painted, plasticised - aluminium, copper;
- glass, mirrors;
- timber, synthetic resins, PVC;
- polycarbonate pre-treated with sandpaper;
- marble and natural stone. It is advisable to always perform a preliminary test;
- Also for use on damp substrates.

Product suitable for flexible sealing and bonding of elements that may be subject to vibration.

Tetra Fix Crystal can be painted over

Do not use on loose and dusty surfaces, on bituminous structures and products exuding oils, solvents or plasticizers; on polyethylene, polypropylene, polytetrafluorethylene, neoprene surfaces. It is recommended that a test be carried out before application on sensitive metal surfaces such as copper, silver and relevant alloys, marble and natural stone.

Do not use to prepare structural joints subject to a high degree of movement. Do not use in swimming pools.

Instructions for use

→ Preparation of substrates

All surfaces to be bonded or sealed must be free of standing water, dust, grease and loose debris. Remove all flaky or loose parts and carefully deoxidize all metals.

When preparing visible joints, and in order to achieve a clean sealing line, it is recommended to cover the edges with a protective mask made with normal adhesive tape.

The application technician is responsible for checking that the sealant is compatible with the substrate in terms of adhesion and stain formation.

If deemed appropriate, use a primer prior to application in order to promote adhesion.

The use of Keragrip Eco Pulep on metal surfaces optimises the cleanliness of the surface and the adhesion of the product to it.

When used as a sealant, Tetra Fix Crystal must be able to move freely, adhering perfectly to the walls but not to the bottom of the joint: therefore, for an appropriate use, insert the closed-cell polyethylene foam sub-joint called Joint; select the appropriate diameter depending on the width of the joint.

→ Preparation

The product is ready-to-use. After cutting the conical nozzle of the cartridge, cut the spout at an angle of 45° to suit the width of the seal to be realized and screw it onto the cartridge. Insert the cartridge of sealant into the appropriate manual or pneumatic dispensing gun.

→ Application

- When used as an adhesive, Tetra Fix Crystal will be extruded in spots on the back of the item to be bonded if the item has a reduced surface; if the item has a large surface area, it will be extruded in parallel and vertical rims, spaced about 10-15 cm from each other. Continue by applying manual pressure to fix the object to be bonded in its final position; if the weight of the object is excessive, use adhesive tape or another propping system to support it during the initial hardening phases when the adhesive is developing its mechanical performance characteristics. The bonded object may be repositioned during the first few minutes after application, depending on the weather conditions.

- When used as a sealant, Tetra Fix Crystal will be extruded within the joint or the crack. Make sure the hybrid paste has been compacted deep into the joints to ensure optimum adhesion.

To achieve a perfect finish, pass a metal or plastic spreader soaked in soapy water over the surface in one, continual movement if possible. For long-lasting sealing, capable of withstanding expansion and contraction stress, the following conditions are necessary:

1. the sizing of the joint must be such that the expected movement, in both compression and extension, does not exceed 7.5% of its initial average width.
2. the ratio between width and sealant depth must be as follows:
 - 1/1 for sections from 8 to 12 mm
 - 2/1 for sections from 12 to 20 mm.
3. the sealant adheres only to the sides of the joint and not to the substrate.

→ Cleaning

Residual traces of sealant can be removed with common solvents. Once hardened, the product can only be removed by mechanical means.

Special notes

- Do not use in completely closed areas as the product will polymerise in atmospheric humidity.
- Brush the joint within 5 minutes after application to ensure the best contact between sealant and substrate.
- A base coat is normally not necessary. Specific substrates (porous or made of plastic materials) may require the use of an adhesion promoter to ensure maximum adhesion. This product is recommended for all situations at risk from dust.
- Tetra Fix Crystal can be painted over. In case of overpainting, the sealant must be fully polymerised. We recommend the use

of elastomeric paints, more specifically the following products:

- paints for internal use: Absolute, Decor, Keradecor White, Keradecor Paint.
 - paints for external use: Kerakover Acrilex Flex, Kerakover Kompact.
 - glazes: Microresina, Aqualite Eco Smalto Satinato, Aqualite Eco Smalto Lucido.
- Always carry out a preliminary compatibility test between sealant and paint.

- After applying Tetra Fix Crystal, protect the sealant from rain for at least 2 hours at +20 °C.

Certificates and marks



* Émission dans l'air intérieur Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentant un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions).

Abstract

Elastic bonding of building materials in general and waterproof, elastic sealing of joints, cracks, couplings will be carried out with a moisture-curing, thixotropic, silane-terminated, hybrid sealant such as Tetra Fix Crystal by Kerakoll Spa, GreenBuilding Rating 3, CE-marked and compliant with the performance requirements of Standard EN 15651, part 1 and 3.

Technical Data compliant with Kerakoll Quality Standard

Appearance	crystal-clear thixotropic paste
Specific weight:	≈ 1.04 g/cm ³
Chemical nature	moisture-curing silane-terminated hybrid polymer
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	290 ml cartridge
Joint min. width	≥ 6 mm
Joint max. width	≤ 20 mm
Sealing section ratio W/D:	
- up to 10 mm	1/1
- from 10 to 20 mm	2/1
Temperature range for application	from +5 °C to +40 °C
Skinning time	≈ 15 – 20 min.
Reticulation time	≈ 3 mm / 24 h
Coverage	see approximate coverage table

Values taken at +23 °C, 50% R.H. and no ventilation.

coverage table**Linear metres of joints sealable with one 290 ml Tetra Fix Crystal cartridge**

Depth	Width	5 mm	8 mm	10 mm	15 mm	20 mm
5 mm		≈ 11.6 m	–	–	–	–
8 mm		–	≈ 4.5 m	–	≈ 2.4 m	–
10 mm		–	–	≈ 2.9 m	≈ 1.9 m	≈ 1.4 m

If an estimated coverage value has not been given, it means the joint width/depth ratio is outside the specified limits and the joint cannot be sealed.

Performance**VOC Indoor Air Quality (IAQ) - Volatile organic compound emissions**

Conformity	EC 1 plus GEV-Emicode	Cert. GEV 17096/11.01.02
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HIGH-TECH

Shore A Hardness	25 – 35	EN ISO 868
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Elastic modulus	0.60 MPa	ISO 8339
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Elongation at break	80%	ISO 8339
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Tensile strength	1,26 MPa	DIN 53504
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Movement capability	25%	ISO 11600
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Resistance to atmospheric agents	excellent	
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Resistance to flow at +23 °C	≤ 3 mm	
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Resistance to flow at +50 °C	≤ 3 mm	
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Working temperature	from -40 °C to +80 °C	
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Classification EN 15651-1	F-EXT-INT	
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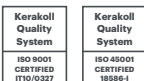
Classification EN 15651-3	S	
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Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

Warning

- Product for professional use
- abide by any standards and national regulations
- use at temperatures between +5 °C and +40 °C
- protect from rain during the first 2 hours following application
- store in a cold and dry environment

- 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



The Rating classifications refer to the GreenBuilding Rating Manual 2013. This information was last updated in June 2023 (ref. GBR Data Report - 06.23); please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see 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 yards 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.