



Technical datasheet

Fix ALL Crystal

Product description

Fix ALL Crystal is a high quality, crystal clear, neutral, elastic, one-component adhesive sealant based on SMX-Polymer.

Properties

- Crystal clear formulation
- Very good adhesion on many materials, even if slightly moist
- Good mechanical characteristics
- Impervious to mould, contains biocide with fungicidal action
- Suitable for sanitary applications
- Good extrudability
- Can be painted with water based systems
- Permanently elastic after curing



Applications

- All common bonding applications, both in and outdoor
- Elastic bonding in construction and building applications
- Sealing joints indoors
- Invisible bonding of glass and other transparent materials in indoor applications
- Sealing joints in sanitary rooms (bathroom) and kitchens.

Technical data

Base	SMX Hybrid Polymer	
Consistency	Stable paste	
Curing system	Moisture curing	
Skin formation	ca. 4 minutes	
Curing speed	2 mm/24h → 3 mm/24h	
Density	ca. 1.05 g/ml	
Maximum allowed joint movement	± 20 %	
Elasticity modulus	ISO 37	ca. 0.60 N/mm ²
Elastic recovery	ISO 7389	> 75 %
Elongation at break	ISO 37	ca. 350 %
Maximum tension	ISO 37	ca. 1.80 N/mm ²
Hardness	38 ± 5 Shore A	
Application temperature	+5°C → +35°C	
Temperature resistance	-40°C → +90°C	

Footnote: Skinning time and curing speed may vary depending on environmental factors such as temperature, moisture, and type of substrates.

Substrates

- Substrate condition

The surface must be rigid, clean, dry or slightly moist, free of dust and grease.





Fix ALL Crystal

■ Substrate preparation

Porous surfaces should be primed with Primer 150. If needed non porous surfaces can be prepared with a Soudal activator or cleaner (see Technical Data Sheet). While producing plastics very often releasing agents, processing aids and other protective agents (like protection foil) are used. These should be removed prior to bonding or sealing.

■ Substrate types

Fix ALL Crystal has a good adhesion to following substrates: all usual building substrates, glass, lacquered wood, PVC, metal, brick, concrete, etc.. Fix ALL Crystal has no good adhesion or is not suitable for PE, PP, PTFE (Teflon®), bituminous substrates, copper or copper containing materials such as bronze and brass. Bonding plastics like PMMA (e.g. Plexi® glass), polycarbonate (e.g. Makrolon® or Lexan®) in stress loaded applications can give rise to stress cracking and crazing in these substrates. The use of Fix ALL Crystal is not recommended in these applications. We recommend a preliminary adhesion and compatibility test on every surface.

Application method

■ Application method

Apply the product by means of a manual-, battery- or pneumatic- caulking gun. Apply the product evenly without air inclusions into the joint. Smoothen the joint with a spatula with the help of finishing solution. Avoid that finishing solution comes between the joint edges and sealant (to prevent adhesion loss). Bonding: Apply the adhesive by means of a caulking gun in equal beads or dots on one of the materials that have to be bonded. Always apply a bead on the edges of the substrates and on edges and corners of panels. Press the substrates together before skin formation and batten down with a rubber hammer. Support if needed.

■ Cleaning method

Clean with Soudal Surface Cleaner or with Soudal Swipex Wipes, immediately after use. Cured product can only be removed mechanically.

■ Finishing method

With Finishing Solution before skinning.

■ Repair method

Repair with Fix ALL Crystal.

Health- and Safety Recommendations

Take the usual labour hygiene into account. Consult the packaging label and safety data sheet for more information.

Keep the area well ventilated during use and curing of the product.

Packaging/Logistics

Colour: Transparent

Packaging: Please consult the product catalogue, the Soudal website or a Soudal representative.

Shelf life: 15 months in unopened packaging in a cool and dry storage place at temperatures between +5°C and +25°C, Once opened the product has only a limited shelf life.

Standards and certificates

- FDA regulation code CFR 21 paragr. 177.2600 (e) for repeated use in contact with aqueous foods.
- Declaration of compliance ISEGA - Tested for use in foodstuffs-related area.

Joint dimensions

- Min. width for bonding: 1 mm
- Min. width for joints: 5 mm
- Max. width for bonding: 3 mm
- Max. width for joints: 10 mm
- Min. depth for joints: 5 mm



Fix ALL Crystal

Environmental clauses

- Leed regulation: Fix ALL Crystal conforms to the requirements of LEED. Low -Emitting Materials: Adhesives and Sealants. SCAQMD rule 1168. Complies with USGBC LEED 2009 Credit 4.1: Low-Emitting Materials – Adhesives & Sealants concerning the VOC-content.

Remarks

- Fix ALL Crystal is paintable with most waterbased paints, however due to the large number of paints and varnishes available we strongly suggest a compatibility test before application.
- The drying time of alkyd resin based paints may increase.
- Fix ALL Crystal can be applied to a wide variety of substrates. Due to the fact that specific substrates such as plastics, like polycarbonate , etc., may differ from manufacturer to manufacturer, we recommend a preliminary compatibility test.
- Fix ALL Crystal is not suitable for expansion joints.
- Do not use in applications where continuous water immersion is possible.
- Fix ALL Crystal can not be used as a glazing sealant.
- Not suitable for bonding aquariums.
- Do not use on natural stones like marble, granite,...(staining).
- The sanitary formula should not replace regular cleaning of the joint. Excessive contamination, deposits or soap residues will stimulate the development of fungi.
- A total absence of UV can cause a color change of the sealant.
- Discoloration of the product due to chemicals, high temperatures, UV-radiation may occur.
- Contact with bitumen, tar or other plasticizer releasing materials such as EPDM, neoprene, butyl, etc. is to be avoided since it can give rise to discolouration and loss of adhesion.
- When using different reactive joint sealants, the first joint sealant must be completely hardened before the next one is applied.
- Fix ALL Crystal can discolour under extreme conditions or after very long UV exposure.

This technical data sheet replaces all previous versions. The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. It is general in nature and does not constitute any liability. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. Since the design, the quality of the substrate and processing conditions are beyond our control, no liability under this publication is accepted. It is the responsibility of the user to determine by his own tests whether the product is suitable for the application. In every case it is recommended to carry out preliminary experiments. The manufacturer reserves the right to modify products without prior notice.