



## **TECHNICAL DATASHEET**

Code	Description	Size	Colour
19331	FixALL MS Crystal Sealant and Adhesive	290ml	Clear
19332	FixALL MS Crystal Sealant and Adhesive	125gm	Clear

# 1. Description

FixALL Crystal Adhesive Sealant is an optically clear, neutral, elastic, single component sealant/adhesive based on SMX-Polymer Technology.

#### 2. Characteristics

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

# 3. Technical Data

Base:	SMX Hybrid Polymer
Consistency:	Stable Paste
Curing System:	Moisture Cure
Skin Formation: (20°C/65% R.V.)	Ca. 4 min.
<b>Curing Rate:</b> (20°C/65% R.V.)	2 - 3mm/24h
Hardness: (DIN 53505)	38 ±5 Shore A
Specific Gravity:	1,05g/ml
Elastic Recovery: (ISO 7389)	> 75%
Maximum Deformation:	±20%
Elasticity Modulus 100%: (ISO 37)	ca. 0.60N/mm <sup>2</sup>
Max Tension: (ISO 37)	ca. 1,80N/mm <sup>2</sup>
Elongation at Break: (ISO 37)	Ca. 350%
Temperature Resistance:	-40°C until +90°C (fully cured)
Application Temperature:	5°C until +35°C
VOC (%)	5%
VOC (g/litre)	<50g/litre

\*This varies according to ambient conditions such as temperature, humidity, substrate etc

## 4. Applications

- $\cdot\,$  All common bonding applications, both in and outdoor
- $\cdot\;$  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.

290ml (net content) cartridge and 125ml tube.

### 6. Shelf Life

15 months in unopened packaging in a cool and dry storage place at temperatures between +5°C and +25°C.

7. Building Product Information				
Manufactured By	Soudal NV			
Distributed By	Soudal Ltd			

#### **Relevant Building Code Clauses**

- **Note:** This product is an adhesive and on its own is not within the scope of the NZ Building Code. However, when it is used as part of an internal floor, wall, or ceiling system, or with other building elements that must comply with the NZ Building Code, and it is used in accordance with that material supplier's specification and Soudal's technical literature, it will contribute to meeting the requirements of the following clauses:
  - B1 Structure: Performance clauses B1.3.1, B1.3.2, B1.3.3 (a ,b, j, q), B1.3.4
  - B2 Durability: Performance clauses B2.3.1 (b) not less than 15 Years, (c) not less than 5 years
  - F2 Hazardous Building Materials: Performance clause F2.3.1

#### **Contribution to compliance With NZBC**

- Performance B1.3.1, B1.3.2, B1.3.3 (a, b, j, q) B1.3.4: When used as an adhesive this product contributes to meeting the loading requirements that bonded lining elements are subjected to, as a result of self-weight, imposed in-use gravity loading, impact, and the effects of creep and shrinkage over time.
- Performance B2.3.1 (b) 15 years and (c) 5 years: This product achieves these durability requirements and will remain serviceable for 15 years, or more, when installed and maintained in accordance with the relevant Soudal product technical documents. Soudal maintains production & management systems in accordance within its ISO9001:2015 Quality Management System.
- Performance F2.3.1: This product meets this requirement when used and applied in accordance with Soudal's installation instructions and does not present a health hazard to people occupying or using the building. Refer to the Soudal Product Technical Data Sheet and product Safety Data Sheet soudal.co.nz for further information if required.

#### 8. Application Instructions

<b>Surfaces</b> <i>Type:</i>	All usual building surfaces such as 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.
	Soudal recommends a preliminary adhesion and compatibility test on every surface.
State: Preparation:	Surfaces must be rigid, clean, dry or slightly moist, free of dust and grease. Porous surfaces should be primed with Soudal Primer 150, Soudal Surface Activator may be used on non-porous surfaces. We recommend preliminary compatibility tests previous to application. 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. For optimum adhesion use Soudal Surface Activator.

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:	Clean with Soudal Surface Cleaner or with Soudal Swipex Wipes, immediately after use. Cured product can only be removed mechanically.
Finish:	with soapy solution before skin formation
Application temperature:	+5°C until +35°C
Repair:	FixAll Crystal

# Joint Size

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

## **Application Limitations**

- Fix ALL Crystal is paintable with most water-based 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.
- $\cdot\,$  Do not use in applications where continuous water immersion is possible.
- · Fix ALL Crystal cannot 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.
- $\cdot\,$  A total absence of UV can cause a colour change of the sealant.
- $\cdot\,$  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 discoloration 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.
- · FixAll Crystal Sealant and Adhesive must not be applied to frost-bearing surfaces or if temperature will be below freezing
- · The suitability of this product, for each intended use, must be determined by the purchaser prior to acceptance
- Pre-testing for adhesion is intended to eliminate potential field problems. This testing will aid in determining the proper surface preparation method.

Soudal recommends preliminary compatibility tests on surfaces on which FixAll Crystal Sealant and Adhesive have not been applied previously.

## 9. Health and Safety Recommendation

· Apply the usual industrial hygiene.

#### Remark

The directives and data contained in this documentation is provided in good faith and accurately reflect Soudal's knowledge when its products are properly stored, handled and applied under normal conditions in accordance with Soudal's recommendations. In practice, the diversity of the materials, substrates, environments, site conditions, product storage, handling and application are such that no warranty can be given in respect to the merchantability or fit for purpose, of any product. All users must determine the product suitability for their purposes through testing. This technical data sheet and product properties may change without notice so users, suppliers and retailers of Soudal products should always check that the data sheets they have are the latest. To the maximum extent permitted by law, Soudal disclaims all warranties in relation to either the manufacture, storage and end use of the product. All orders are accepted subject to our current terms of trade. **If any clarification is required, please contact Soudal Technical Services or email <u>info@soudal.co.nz</u>.** 

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