

3 April 2024

## T-REX CRYSTAL

### Technical Data

Basis	SMX® Hybrid Polymer
Consistency	Stable paste
Curing system	Moisture curing
Skin formation* (23°C/50% R.H.)	Ca. 10 min
Curing speed* (23°C/50% R.H.)	Ca. 2 - 3 mm/24h
Hardness**	Ca. 38 ± 5 Shore A
Density	Ca. 1.04 g/mL
Elastic recovery (ISO 7389)**	> 75 %
Maximum allowed distortion (ISO 11600)	± 20 %
Max. tension (ISO 37)**	Ca. 2.40 N/mm <sup>2</sup> (MPa)
Elasticity modulus 100% (ISO 37)**	Ca. 0.80 N/mm <sup>2</sup> (MPa)
Elongation at break (ISO 37)**	300 %
Temperature resistance**	-40 °C → 90 °C
Application temperature	5 °C → 35 °C

\* These values may vary depending on environmental factors such as temperature, moisture, and type of substrates.

\*\* This information relates to fully cured product

### Product description

T-Rex Crystal the most versatile transparent adhesive and sealant on the market. Due to its high translucency it can be used for invisible sealing and bonding. T-Rex Crystal is suitable for sanitary areas and is certified suitable for food contact. Once cured it forms a strong and elastic waterproof seal.

It is based on the unique SMX® Hybrid Polymer technology developed by Soudal.

### Properties

- Crystal clear formulation
- Excellent adhesion on nearly all surfaces, even if slightly moist.
- Very good mechanical characteristics.
- Impervious to mould, contains biocide with fungicidal action
- Suitable for sanitary applications.
- Good extrudability even at low temperatures
- Free of isocyanates, solvents, halogens and acids
- Can be painted with all water based paints and many other systems (to be tested)
- Permanently elastic after curing

### Applications

- All common bonding and sealing for indoor and outdoor applications

- Transparent and elastic bonding in construction and building applications.
- Invisible bonding of glass and other transparent materials in indoor applications.
- Joints in bathrooms and kitchens.

### Packaging

*Colour:* crystal clear

*Packaging:* 290 mL cartridge, 125 mL squeeze tube

### Shelf life

15 months in original, unopened packaging in a cool and dry storage place with temperature between +5°C and +25°C.

### Chemical resistance

Good resistance to (salt)water, aliphatic solvents, hydrocarbons, ketones, esters, alcohols, diluted mineral acids and alkalis.

Poor resistance to aromatic solvents, concentrated acids and chlorinated hydrocarbons.

### Substrates

*Substrates:* all usual building substrates, brick, concrete, metals, treated timber, PVC, plastics, ...

*Nature:* rigid, clean, free of dust and grease, dry or slightly moist.

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**Surface preparation:** T-Rex Crystal has a good adhesion to most substrates. However, for optimal adhesion and in critical applications, such as joints exposed to extreme weather conditions, high- or water- loaded joints, we recommend to follow a pretreatment procedure. Prepare non-porous surfaces with a Soudal **Surface Activator** (see Technical Data Sheet). Porous surfaces should be primed with Soudal **Primer 150**.

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.

For optimum adhesion the use of **Surface Activator** is recommended. NOTICE: 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 T-Rex Crystal is not recommended in these applications.

Not suitable for PE, PP, PTFE (eg Teflon®), bituminous substrates, copper or copper-containing materials such as bronze and brass.

We recommend a preliminary adhesion and compatibility test on every surface.

### Joint dimensions

	JOINT		BONDING
	Width	Depth	Width
Min	5 mm	5 mm	1 mm
Max	10 mm	10 mm	3 mm

Ensure correct joint dimension and preparation, consult the technical bulletin “Joint Preparation & Joint Dimensions” on our website.

### Application method

Refer to the current Technical Data Sheet on our website prior to use.

Apply the product with high thrust-ratio caulking gun. Smoothen the joint with a spatula with the help of finishing solution. Avoid that soapy solution comes

between the joint edges and sealant (to prevent adhesion loss).

**Application method:** With manual- or pneumatic caulking gun.

**Cleaning:** Clean with Soudal Surface Cleaner or with Soudal **Swipex**, immediately after use. Cured T-Rex Crystal can only be removed mechanically.

**Finishing:** With a soapy solution or Soudal Finishing Solution before skinning.

**Repair:** With the same material.

### Health- and Safety Recommendations

Take the usual labour hygiene into account. Consult label and material safety data sheet for more information. Use only in well-ventilated areas.

### Remarks

- T-Rex Crystal is paintable with 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.
- T-Rex Power 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 preliminary compatibility test.
- T-Rex Crystal is not suitable for expansion joints.
- Do not use in applications where continuous water immersion is possible.
- T-Rex Crystal has a good UV resistance but can discolour under extreme conditions or after very long UV exposure.
- T-Rex Crystal cannot be used as a glazing sealant.
- Not suitable for bonding aquariums.
- T-Rex Crystal cannot be used on natural stone.
- The sanitary formula should not replace regular cleaning of the joint. Excessive contamination, deposits or soap remainings will stimulate the development of fungi.
- When using different reactive joint sealants, the first joint sealant must be completely hardened before the next one is applied.

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- When applying, make sure not to spill any sealant on the surface of materials. Taping the surface around the joint can prevent this.
- A total absence of UV can cause a colour change of the sealant.
- Discoloration due to chemicals, high temperatures, UV-radiation may occur. A change in colour does not affect the technical properties of the product.
- 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.

### Standards and certificates

- AU: WaterMark WMTS-014:2016 Licence: WM-023300
- Food Safe: IANESCO Test Report # E18-18236: Compliance with FDA specifications Code CFR 21 - §177.2600 (e) and (f). MA-Me-28 method

### Environmental clauses

#### *Leed regulation:*

T-Rex Flex 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.

### Liability

The content of this technical data sheet is the result of tests, monitoring and experience. It is general in nature and does not constitute any liability. It is the responsibility of the user to determine by his own tests whether the product is suitable for the application.

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