



**Technical Data Sheet** 

# **SOUDAL T-REX CRYSTAL**

**Revision: 20/02/2012** Page 1 of 2

#### **Technical Characteristics:**

Base	MS Polymer ®
Consistency	Stable Paste
Curing System	Moisture Cure
Skin Formation (*) (20°C/65% R.V.)	Ca. 10 min.
Curing Rate (*) (20°C/65% R.V.)	2 à 3 mm/24h
Hardness (DIN 53505)	38 ± 5 Shore A
Specific Gravity (DIN 53479)	1,04 g/mL
Elastic Recovery (ISO 7389)	> 75 %
Maximum Deformation	± 20 %
Temperature Resistance (fully cured)	-40°C to +90°C
Elasticity Modulus 100 % (DIN 53504)	0,80 N/mm²
Tear Strength (DIN 53504)	2,40 N/mm²
Elongation at break (DIN 53504)	300 %

<sup>(\*)</sup> these values may vary depending on environmental factors such as temperature, moisture, and type of substrates

# **Product:**

T-Rex Crystal is a crystal clear, neutral, elastic, single component sealant/adhesive based on MS-Polymers®.

## **Characteristics:**

- Completely transparent
- Outstanding bond strength, mostly without primer, on nearly all surfaces, even moist.
- High performance mechanical properties
- Very easy to tool and finish
- Good extrudability even at low temperatures
- Ecological advantages free of isocyanates, solvents, halogens and acids
- Minimal health and safety considerations
- Can be painted with water based paints and a number of other systems (preliminary test required)
- Permanently elastic after full cure

# Applications:

All interior and exterior bonding and sealing applications

Transparent and elastic bonding in many different construction and building applications Interior bonding of glass and other transparent materials (cannot be used as a glazing sealant).

# Packaging:

Colour: transparent

Packaging: cartridge 290mL

# Shelflife:

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

#### Resistance to chemical agents:

Good resistance to water, aliphatic solvents, mineral oils, grease, diluted inorganic acids and alkalis

Poor resistance to aromatic solvents, concentrated acids, chlorinated hydrocarbons

## Joint dimensions:

Minimum width: 1 mm (bonding)

2 mm (joints)

Maximum width: 3 mm (bonding)

3 mm (joints)

Remark: The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. 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. In every case it is recommended to carry out preliminary experiments.

 Soudal NV
 Everdongenlaan 18-20
 2300 Turnhout, Belgium

 Tel.: +32 (0)14-42.42.31
 Fax: +32 (0)14-42.65.14
 www.soudal.com





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**Revision: 20/02/2012** Page 2 of 2

#### Substrates:

T-Rex Crystal has an excellent adhesion to the usual building surfaces. It has been tested on the following metal surfaces: steel, AlMgSi1, brass, electrolytic galvanised steel, AlCuMg1, flame galvanised steel, AlMg3 and steel ST1403. Plastics that were tested include: polystyrene, polycarbonate (Makrolon®), PVC, polyamide, glass fibre reinforced epoxy and polyester (GRP). NOTICE: bonding plastics like polycarbonate (ie 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. There is no adhesion on PE, PP, PTFE (Teflon®), PMMA (ie Plexi® glass), silicones and bituminous substrates.

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 the use of Surface Activator is recommended. *Nature:* clean, free of dust and grease *Priming:* Porous surfaces in water loaded applications should be primed with Primer 150. Surface Activator may be used on non-porous surfaces.

We recommend preliminary compatibility tests previous to application.

## Application:

Method: Manual- or pneumatic caulking gun Application temperature: +5°C until +35°C Cleaning: Fix ALL Cleaner immediately after application and before curing Tooling: with soapy solution before skin formation Repair with: T-Rex Crystal

## **Health- and Safety Recommendation:**

Apply the usual industrial hygiene. Check the packaging for more information

#### Remarks:

- T-Rex Crystal may be overpainted, 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.
- Due to the wide variety of possible substrates, Soudal recommends a preliminary compatibility test.
- T-Rex 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.
- Not suitable for dilatation joints
- Do not use in applications where continuous water immersion is possible or in sanitary applications.
- T-Rex Crystal displays very good UV stability but may discolour in extreme conditions or after long term exposure.
- This product can not be used as a glazing sealant.
- T-Rex Crystal cannot be used on natural stone. Because the adhesion surface will discolour under influence of the sealant (looks wet) and because this is visible through the crystal clear sealant it seems like staining has occurred.

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