

PUR-O-CRACK PLUS L

**General Building Inspectorate Approval for curtain grouting
CE-marking in accordance with EN 1504-5**



Properties:

PUR-O-CRACK PLUS L is a two-component, slow reacting, highly elastic injection resin based on polyurethane for water proofing and stabilization of water bearing structures with pressing water and non-pressing water.

PUR-O-CRACK PLUS L is used for stabilization and solidification of water bearing rocks, ground, sand, for injection of brickwork as well as a concrete injection product for ductile filling of cracks according to EN 1504-5.

PUR-O-CRACK PLUS L has a German General Building Inspectorate Approval as an injection product for curtain grouting.

Technical data:

Substance data of components:

| <i>Component A</i> | | |
|-----------------------|--------------------------------|-------------------|
| Consistency | liquid | |
| Colour | transparent yellowish | |
| Odour | hardy noticeable | |
| Spec. density (23°C) | approx. 1.01 g/cm ³ | DIN EN ISO 2811-1 |
| Dyn. viscosity (23°C) | approx. 115 mPas | DIN EN ISO 2555 |

Component B

| | | |
|-----------------------|--------------------------------|-------------------|
| Consistency | liquid | |
| Colour | brown | |
| Odour | characteristic | |
| Spec. density (23°C) | approx. 1.21 g/cm ³ | DIN EN ISO 2811-1 |
| Dyn. viscosity (23°C) | approx. 40 mPas | DIN EN ISO 2555 |

Mixture of A- and B-component:

| | | |
|-----------------------------|-------------------------|-----------------------|
| Processing temperature | 5 - 30°C | substrate temperature |
| Mixing ratio A : B | 1 : 1 (parts by volume) | |
| Viscosity of mixture (23°C) | approx. 61 mPas | DIN EN ISO 2555 |
| Surface tension (23°C) | approx. 35.7 mN/m | DIN ISO 1409 |

Reaction data (at 23°C):

| | | |
|-----------------|-----------------|-----------------|
| String gel time | approx. 130 min | ASTM D7487 |
| Pot-life | approx. 30 min | DIN EN ISO 9514 |

Properties after curing:

| | | |
|------------------|------------------|----------------|
| E-modulus | approx. 0.25 MPa | DIN EN ISO 527 |
| Tensile strength | approx. 0.60 MPa | DIN EN ISO 527 |

| | | |
|---------------------|---------------|----------------|
| Elongation at break | approx. 220 % | DIN EN ISO 527 |
| Shore A hardness | approx. 10 | DIN ISO 7619-1 |

Processing:

Both components are taken directly from the original packaging by means of a 2K injection pump and mixed homogeneously in a static mixer. Injection is done over packer or injection lances.

Indicated injection pumps: *TPH INJECT PS 25-II*
TPH INJECT PS 5-II
TPH INJECT EL 5 II

Indicated mixer: static mixer 13-32
 inline static mixer, plastic Ø 9.4 mm
 art.no. 333902

Due to the relatively long reaction time *PUR-O-CRACK PLUS L* may be alternatively processed by means of a 1K injection pump. Therefore mix components in a dry and clean container with the aid of a slow-speed mixing device until reaching a homogeneous appearance (no streaks). Afterwards the mix is to be pumped.

Indicated injection pump: *CONTRACTOR 1U*
ME 1K ELECTRIC

Shorter reaction times can be adjusted by adding the *PUR-O-STOP FS-C* catalyst to component A (see pot-life table).

Pot-life dependent on *PUR-O-STOP FS-C* quantity *:

| Quantity of FS-C [g] | Pot-life [min : s] |
|-------------------------|-----------------------|
| 20 | 77 : 58 |
| 40 | 55 : 24 |
| 60 | 28 : 18 |
| 80 | 15 : 32 |
| 100 | 10 : 46 |
| 120 | 08 : 53 |
| 140 | 07 : 35 |
| 160 | 06 : 12 |
| 180 | 05 : 01 |
| 200 | 04 : 08 |
| 220 | 03 : 52 |
| 240 | 03 : 44 |
| 260 | 03 : 40 |
| 280 | 03 : 38 |
| 300 | 03 : 24 |

* Pot-life determined at 23°C without water contact; standard ASTM D7487
 Catalyst quantities with reference to 20 kg component A

Two different different versions with fixed pot-lives (*PUR-O-CRACK PLUS* incl. 40 g of FS-C or *PUR-O-CRACK PLUS F* incl. 300 g of FS-C) can be used instead of *PUR-O-CRACK PLUS L*.

PUR-O-CRACK PLUS, PUR-O-CRACK PLUS L and PUR-O-CRACK PLUS F injection resins can be combined with each other. The component B of these products is identical.

Safety information:

PUR-O-CRACK PLUS component B contains isocyanates and is classified as hazardous according to Regulation (EC) 1272/2008 (CLP).

It is therefore necessary, before beginning processing, to become familiar with the precautions and safety advice as indicated in the material safety data sheet.

Packaging:

PUR-O-CRACK PLUS L

| | |
|-------------|---|
| Component A | 1000 kg-IBC 200 kg-Barrel 20 kg metal canister 10 kg metal canister 5 kg metal canister 1.0 kg tin |
|-------------|---|

PUR-O-CRACK PLUS

| | |
|-------------|---|
| Component B | 1200 kg-IBC 240 kg-Barrel 24 kg metal canister 12 kg metal canister 6 kg metal canister 1.2 kg tin |
|-------------|---|

Combined packaging 1500 ml double cartridge incl. mixer

Bigger packaging on request.

Storage:

Shelf life at least 12 month in original packaging when stored in dry conditions between 15-25°C, protected from heat, frost and direct sunlight.

After the expiration the use of the product is generally not recommended, unless an approval has been provided by TPH. This approval can only be obtained by the quality assurance department of TPH releasing the material after verification of main properties being within specification.

Disposal:

Small quantities of cured product residues can be disposed of as normal domestic waste. Dispose of not cured product components must be effected in accordance with the corresponding local regulations. For further information please refer to the material safety data sheets.

Test certificates:

PUR-O-CRACK PLUS, PUR-O-CRACK PLUS-L, PUR-O-CRACK PLUS-F - Examination of the leaching behaviour of an injection system based on polyurethane; MFPA Leipzig 2018

Determination of the identification properties and performances of crack injection product *PUR-O-CRACK PLUS / PUR-O-CRACK PLUS L* according to EN 1504-5; MFPA Leipzig 2019



PUR-O-CRACK PLUS and *PUR-O-CRACK PLUS L* - Examination of the leaching behaviour of the injection products based on polyurethane resins; MFPA Leipzig 2019

General Building Inspectorate Approval "PUR-O-CRACK PLUS and PUR-O-CRACK PLUS L for curtain grouting"; DIBt Berlin 2020

Legal notice:

The correct and thus successful application of our products is not subject to our control. A guarantee can be issued for the quality of our products within the framework of our sales and supply conditions, however not for successful processing. All data and specifications in this specification sheet are based on the present state of the art and the right to changes and adaptations for the sake of development remains explicitly reserved. The consumption specifications designated by us can be only average empirical values, where deviations are possible on an individual basis and therefore cannot be excluded by us.

TPH Bausysteme GmbH
Nordportbogen 8
D-22848 Norderstedt

Tel.: +49 (0)40 / 52 90 66 78-0
Fax: +49 (0)40 / 52 90 66 78-78
e-mail: info@tph-bausysteme.com
Web: www.tph-bausysteme.com