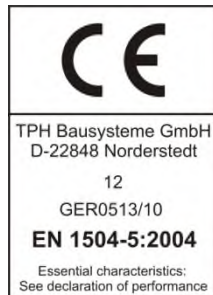


## PUR-O-STOP FS

### CE-marking in accordance with EN 1504-5



#### Properties:

*PUR-O-STOP FS* is a fast reacting, rigid, two-component injection resin based on polyurethane for water proofing and stabilisation of water bearing structures.

*PUR-O-STOP FS* is an injection resin with variable reaction time which can be adjusted by adding the catalyst (see pot-life table).

*PUR-O-STOP FS* penetrates well into structures to be sealed. Upcoming water gets mostly forced out due to the viscous and hydrophobic mixture. At borders of resin/water the mixture develops stable and solid foam.

*PUR-O-STOP FS* is used for stabilisation and solidification of water bearing rocks, ground, sand as well as for stopping in rushing water in tunnels, shafts, dams and other building structures made from concrete or brickwork and as a concrete injection product for force transmitting filling of cracks<sup>1</sup>.

#### Technical Data:

##### Substance data of components:

###### *Component A*

Consistency	liquid	
Colour	transparent yellowish	
Odour	hardly noticeable	
Spec. density (20°C)	approx. 1.02 g/cm <sup>3</sup>	DIN EN ISO 2811-1
Dyn. viscosity (25°C)	approx. 180 mPas	DIN EN ISO 3219

###### *Component B*

Consistency	liquid	
Colour	brown	
Odour	characteristic	
Spec. density (20°C)	approx. 1.23 g/cm <sup>3</sup>	DIN EN ISO 2811-1
Dyn. viscosity (25°C)	approx. 115 mPas	DIN EN ISO 3219

##### 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 (21°C)	approx. 150 mPas	DIN EN ISO 3219

##### Reaction data (without PUR-O-STOP FS-C at 21°C):

String gel time (pot-life)	approx. 5 min	ASTM D7487
Final curing	approx. 30 min	

Properties after curing:

Bending tensile strength  
Compressive strength

approx. 29 N/mm<sup>2</sup>  
approx. 74 N/mm<sup>2</sup>

DIN EN 12390-5  
DIN EN 12390-3

**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: *BOOSTER 10 J*  
*TPH INJECT PS 25-II*  
*TPH INJECT PS 5-II*

Indicated mixer: static mixer 13-32

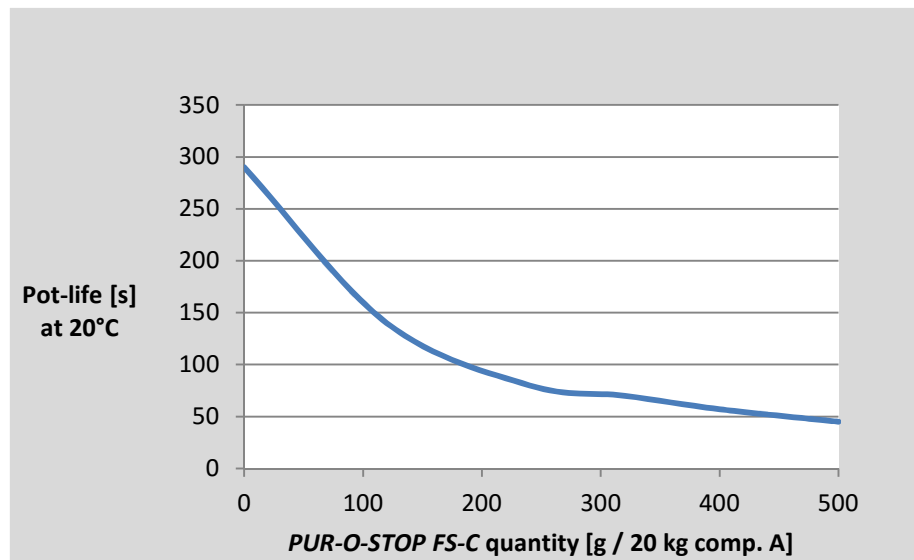
At contact with water the resin starts foaming and prevents the following resin to foam up. Therefore *PUR-O-STOP FS* can be processed in one step of work.

Variable reaction time can be adjusted by adding the catalyst *PUR-O-STOP FS-C* (C = catalyst) according to the application (see pot-life table).

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

Catalyst quantity	without	120 g	240 g	320 g	400 g	500 g
Pot-life [min:s]	4:50	2:20	1:20	1:10	0:57	0:45

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



With strong outflow of water or in case of cold water we recommend to use *PUR-O-STOP FS-F* (F = fast reaction time) or *PUR-O-STOP FS* combined with *PUR-O-STOP FS-TX* thixotropic agent.

With longer reaction times, as in the case of crack injection and ground stabilisation, we recommend the use of *PUR-O-STOP FS-L* (L = long reaction time).



*PUR-O-STOP FS*, *FS-F* und *FS-L* can be combined with each other. The component B of these products is identical.

**Safety information:**

*PUR-O-STOP FS* 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-STOP FS*  
Component A                                    20 kg metal canister

*PUR-O-STOP FS*  
Component B                                    24 kg metal canister

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:**

Drinking water test in accordance with KTW recommendations as of 1977, LADR Geesthacht 2010

Examination of the leaching behaviour with reversed flow direction of the fast reacting injection resin *PUR-O-STOP FS* (column trial referring to DIBt Guideline "Assessments of the effects of construction products on soil and ground water"); MFPA Leipzig 2010

Determination of identifying properties according to EN 12390-5; TPA Hamburg 2010



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GER0513/10

EN 1504-5:2004

Concrete injection product  
EN 1504-5: U(F1) W(5)(1/2/3) (5/30)(0)

<b>Adhesion by tensile bond strength</b>	> 2 N/mm <sup>2</sup>
<b>Adhesion by slant shear strength</b>	NPD
<b>Volumetric shrinkage</b>	< 3 %
<b>Glass transition temperature</b>	> 40°C
<b>Injectability into dry medium</b>	Injectability class: 0.5
<b>Durability (compatibility with concrete)</b>	cohesive failure in the substrate
<b>Corrosion behavior</b>	deemed to have no corrosive effect
<b>Release of dangerous substances</b>	NPD

#### 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.

#### Comments:

<sup>1</sup> for uses with low performance requirements in buildings and civil engineering works

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