Technical Data Sheet
Issue: 09-11-2020

HYDROPOX EP1

CE-marking in accordance with EN 1504-5
DIBt expertise for crack filler *HYDROPOX EP1*

CE
0800
TPH Bausysteme GmbH
D-22848 Norderstedt
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GER0513/25
EN 1504-5:2004
Essential characteristics:
See declaration of performance

Properties:

HYDROPOX EP1 is a 2-component injection resin on an epoxide basis with specific chemical and physical properties.

Due to its mixture viscosity, which is relatively low for an EP resin, *HYDROPOX EP1* is used for force transmitting filling of cracks also hairline cracks.

The particular material basis of *HYDROPOX EP1* makes application even on slightly moist subsurface possible (see bond strength).

HYDROPOX EP1 is an injection product for force transmitting filling of cracks, voids and interstices in concrete according to EN 1504-5.

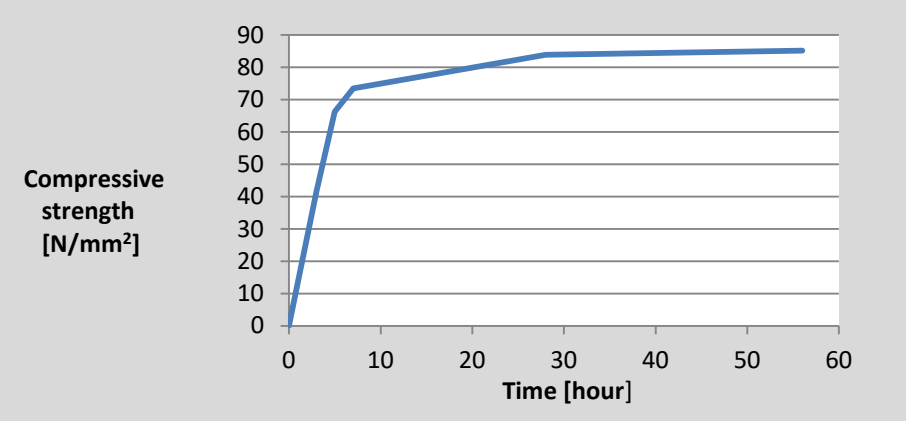
The crack filler *HYDROPOX EP1* is suitable for the following actions XALL, XF1-XF4, XSTAT, XBW1, XCR DY, XCR DP, XDYN according to ZTV.ING 2017 or BAW planner recommendation

Technical Data:

Substance data of components:		
Component A		
Consistency	liquid	
Colour	light yellow	
Odour	characteristic	
Spec. density (23°C)	approx. 1.13 g/cm^3	DIN EN ISO 2811-1
Dyn. viscosity (23°C)	approx. 700 - 950 mPas	DIN EN ISO 2555
Component B		
Consistency	liquid	
Colour	light yellow	
Odour	similar to amine	
Spec. density (23°C)	approx. 0.99 g/cm^3	DIN EN ISO 2811-1
Dyn. viscosity (23°C)	approx. 20 - 40 mPas	DIN EN ISO 2555
Mixture of A- and B-component:		
Processing temperature	10 - 30°C	substrate temperature
Mixing ratio A : B	2 : 1 (parts by volume) 2.27 : 1 (parts by weight)	

Viscosity of mixture (23°C)	approx. 200 mPas	DIN EN ISO 2555
Reaction data (at 23°C):		
Pot-life	approx. 30 min	DIN EN 14022
Final curing	approx. 7d	
Properties after curing:		
Bending tensile strength	approx. 29 N/mm^2	DIN EN 12390-5
Compressive strength	approx. 85 N/mm^2	DIN EN 12190

Compressive strength development at 10°C:



E-modulus	approx. 2170 MPa	DIN EN ISO 527
Tensile strength	approx. 23 N/mm^2	DIN EN ISO 527
Elongation at max. tensile force	approx. 1 %	DIN EN ISO 527
Bond strength at concrete		
dry	approx. 3,1 N/mm^2	DIN EN 1542
slightly moist	approx. 2,8 N/mm^2	DIN EN 1542
wet	approx. 1,9 N/mm^2	DIN EN 1542

Chemical resistance DIN EN ISO 175

Classification:

+ resistant (non or little effect)

+/- limited resistant (moderate effect)

- not resistant (serious effect)

Chemical compound	Classification	Remarks
Bencyl alcohol	+/-	resistant for 72 h
n-Hexane	+	
Sea water 12 %	+	
Sea water 25 %	+	
Sulfuric acid 96 %	-	resistant for 1 h
Petrol	+/-	resistant for 72 h
Diesel fuel	+	
Kerosine, Jet fuel (Jet A1)	+/-	resistant for 72 h
Mineral oil 15W40	+	
Brake fluid	+	
Sunflower oil	+	
Toluene	-	resistant for 1 h
Ethylene glycol	+	
Acetone	-	
Ethanol	-	resistant for 1 h
Methanol	-	resistant for 1 h

Ammoniac solution 10 %	+	
Sodium hydroxide solution 10 %	+	
Sodium hydroxide solution 50 %	+	
n-Butanol	+/-	resistant for 72 h
Acetic acid 10 %	+	
Acetic acid 50 %	-	resistant for 1 h

Processing:

Mix components A and B of *HYDROPOX EP1* in the prescribed proportions in a dry and clean container with the aid of a mixing device until reaching an homogeneous appearance (no streaks). Afterwards the mix is to be pumped.

Indicated injection pump: *CONTRACTOR 1U*

For cleaning of pump and injection devices we recommend the use of *PUR-O-CLEAN* (see specific Technical Data Sheet).

Safety information:

HYDROPOX EP1 component A contains epoxy resin. *HYDROPOX EP1* component B contains amines. Both components are 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:

Component A	20 kg metal canister 10 kg metal canister
Component B	8.8 kg metal canister 4.4 kg metal canister
Combined packaging	1.44 kg combined can

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:

HYDROPOX EP1 - Determination of identifying properties and performance characteristics of epoxy resin according to DIN EN 1504-5; MFPA Leipzig 2010

Injection behavior in concrete elements - test of the crack filling material

HYDROPOX EP1 according to DIN V 18028:2006-06; MFPA Leipzig 2011

Compressive strength development of injection resins *HYDROPOX EP1* and *HYDROPOX EP1 FAST* at lowest processing temperature; MFPA Leipzig 2012

HYDROPOX EP1 - Examination of the leaching behavior of an injection product based on epoxy resin; MFPA Leipzig 2016

Test of the effect of *HYDROPOX EP1*, *RUBBERTITE*, *RUBBERTITE* + *POLINIT*, *PUR-O-CRACK*, *PUR-O-CRACK PLUS* and *PUR-O-STOP FS-L* injection products on elastomers in concrete according to DIN EN 12637-3; MFPA Leipzig 2018

Determination of identifying properties and performance characteristics of *HYDROPOX EP1* crack injection product according to DIN EN 1504-5:2013; MFPA Leipzig 2019

HYDROPOX EP1 - Determination of identifying properties; MFPA Leipzig 2020

DIBt expertise for crack filler F(P) *HYDROPOX EP1*; 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

Waterproofing Systems