WILLPOX ® 7147

2-component crack injection resin based on epoxy resin

1. Applications

WILLPOX® 7147 is a solvent-free and low-viscosity 2-component epoxy-based reaction resin specially developed for the friction-filling of cracks, voids and defects in dry or matt damp concrete or masonry structures.
WILLPOX® 7147 has very low viscosity and therefore penetrates well, even into finer cracks, and develops high compressive and flexural strengths. **WILLPOX® 7147** permissibly ensures a permanently force-fit bonding of the crack flanks even on matt damp substrates.
WILLPOX® 7147 is used in construction and underground work for the force-fit injection of cracks in tunnels, reinforced concrete elements, dams and other structures made of concrete and masonry.
WILLPOX® 7147 meets the performance requirements for the scope of application *"Crack fillers for the force-fit filling of cracks, cavities, and defects (F)"* and complies with classification **U(F1) W(1) (1/2) (12/30) (1)**

2. Substance data*

		WILLPOX® 7147 -A	**WILLPOX® 7147 -B**	**Norm**
Mixing ratio	Weight parts	2.26	1	
	Volume parts	2	1	
Density at 23°C	kg/m³	1.120 ± 50	1.000 ± 50	DIN 51757
Viscosity at 23°C	mPa*s	500 ± 50	15 ± 05	DIN EN ISO 3219
Mixing viscosity at 25°C	mPa*s	175 ± 25		DIN EN ISO 3219
Colour		yellowish		
Processing temperature	°C	10 - 30		

3. Reaction and mechanical data*

Reaction profile at:		10°C	20°C	30°C	Norm
Curing	min	145	100	50	PV_FW10

Reaction profile at:		5°C	21°C	30°C	Norm
Pot life	min	87	25	11	-

			Norm
Flexural strength after 7 days	N/mm²	39	DIN EN ISO 178:2019-08
Compressive strength at 10% compression after 7 days	N/mm²	109	DIN EN ISO 604:2008-12
Flexural modulus of elasticity after 7 days	MPa	887	DIN EN ISO 178:2019-08
Shore D after 7 days		76	DIN EN ISO 868

			Norm
Tensile strength (Tension)	N/mm²	25.4	DIN EN ISO 527-1:2019-12 DIN EN ISO 527-2:2012-06
Elongation	%	21.4	
Modulus of elasticity	N/mm²	941	
Adhesion through adhesive tensile strength (dry/wet)		100% Cohesive failure in concrete	DIN EN 12618-2:2004-11
Injectability	MPa	0.1: high injectability (<4 min)	DIN EN ISO 178:2019-08
Tensile strength development in polymers	N/mm²	> 3 within 72 h	DIN EN 1543:1998-02
Volumetric shrinkage	%	1.23	DIN EN 12617-2:2004-11
Glass transition temperature		49.7 °C	DIN EN 12614:2005-01
Dynamic viscosity (Mixture)	mPa*s	176.9	DIN EN ISO 3219-2:2021-08

4. Composition and properties

WILLPOX® 7147 is permanently resistant to water, seawater and wastewater in the cured state, as well as to numerous alkalis, dilute acids, salt solutions, mineral oils, lubricants and fuels, as well as to short-term exposure to various solvents.

5. Preparation/Processing

Mixture:
Both components are supplied in the correct mixing ratio.
Pour component B into the resin component (A) and make sure that it runs out completely.
Then mix (A+B) with a mechanical agitator at a maximum of 300 rpm.
Mix thoroughly, e.g. using a slow-running drill with a stirring paddle. It is essential to also stir thoroughly from the bottom and sides so that the components are mixed homogeneously with each other (without streaks)! The optimum mixing time is about 3 minutes, and the material temperature should be approx. +15°C during the mixing process.
Do not process the mixed material from the delivery container but transfer it to a clean container and then pour it into the processing equipment (e.g. pump hopper).

Recommended application equipment: air-operated 1-component piston pumps, electrically operated 1 K diaphragm pumps, hand lever pumps.

Cleaning:
After each work step, the equipment and tools must be carefully cleaned with thinner.

6. Safety instructions

WILLPOX® 7147 -A and **WILLPOX® 7147 -B** are classified as dangerous according to REGULATION (EC) No 1272/2008. Before starting processing, it is necessary to inform yourself about precautionary measures and safety advice by means of the safety data sheets.

Other notes:
Observe BG regulation 227 "Activities involving epoxy resins", BG leaflet M 004 "Irritant substances - Corrosive substances".

GISCODE: RE1 (Epoxy resins, solvent-free, sensitising)

7. Storage

At least six months after delivery or twelve months after production if stored dry between 10°C and 30°C. The minimum durability is reflected by the batch number on the container.

8. Delivery form

	WILLPOX® 7147 -A	**WILLPOX® 7147 -B**
1.47 kg combi container **(item no. WPOX-7147-1-1,47)**	1 l tin can à 1.02 kg **(item no. WPOX-7147-1-A1,02)**	0,5 l tin can à 0.45 kg **(item no. WPOX-7147-1-B0,45)**
10 Kg **(item no. WPOX-7147-1-10)**	10 l tin can à 6,94 kg **(item no. WPOX-7147-1-A6,94)**	5 l tin can à 3,06 kg **(item no. WPOX-7147-1-B3,06)**
20 kg **(item no. WPOX-7147-1-20)**	30 l hobbock à 13.88 kg **(item no. WPOX-7147-1-A13,88)**	10 l plastic canister à 6.12 kg **(item no. WPOX-7147-1-B6,12)**

Other delivery forms on request.

9. Waste management

In Germany, empty packaging can be taken back by the KBS or Interseroh-System for steel or plastic packaging. The return is limited exclusively to used, completely empty packaging of the same type, shape, and size that we carry in our product range.

Transport and outer packaging are not included.

For more information on the location and further modalities of the return, please visit the website of the recycling partner acting on our behalf:

interseroh
zero waste solutions
244922

Interseroh+ GmbH

www.interseroh.plus
info@interseroh.plus
Tel.: +49 (0)2203 9147 - 1268

KBS 0234

Kreislaufsystem
Blechverpackungen Stahl GmbH
www.kbs-recycling.de
info@kbs-recycling.de
Tel.: +49 (0)211 239228 - 0

Reacted product residues can be disposed of in smaller quantities with household waste, in larger quantities as construction waste or incinerated.
Non-reacted product components must be disposed of in accordance with local regulations.

10. Test certificates/Approvals

WILLPOX® 7147, Testing in accordance with DIN EN 1504-5:2005-03 on crack injection resin, KIWA GmbH September 2025

WILLPOX® 7147, DoP according to DIN EN 1504-5:2005, Injection of concrete components – for the area of application Crack fillers for force-fit filling of cracks, cavities, and defects (F), System 4

11. Legal notices

***The indicated data are laboratory values.**

Our technical application advice, which we give to support the customer or applicator on the base of our experience and to the best of our knowledge according to the current state of knowledge in practice and science, is non-binding and does not represent an agreed quality. The data and processing instructions are based on laboratory tests.

In practice, the measured values may be different due to influences outside our control. We explicitly reserve the right to make technical changes during further development.

The technical documents should be read carefully before starting work.

With the publication of a new version of the technical data sheet, all previous data sheets lose their validity. The applicator must test the products for their suitability for the intended application.

With the publication of this data sheet, previous editions become void.

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