

WILLPUR® CL

Two-component resin for elastic sealing and consolidation of water-bearing areas

1. Applications

WILLPUR® CL is a slow-reacting, highly elastic two-component polyurethane resin. **WILLPUR® CL** is used for closing, sealing and elastic bonding of cracks and construction joints in reinforced concrete in accordance with EN 1504-5, for grouting injection hoses, for sealing and consolidating cracks and fissures in rock or for sealing and consolidating soil.

2. Substance data*

		WILLPUR® CL - A	WILLPUR® CL - B	Norm
Consistency		liquid	liquid	
Colour		transparent yellowish	brown	
Odour		low	Characteristic	
Density at 23°C	g/cm ³	approx. 1.01	approx. 1.21	DIN EN ISO 2811-1
Viscosity at 23°C	mPa*s	approx. 115	approx. 40	DIN EN ISO 2555

3. Reaction and mechanical data*

Mixture of A and B components		Norm
Processing temperature (component temperature)	5 - 30°C	
Mixing ratio A : B (parts by volume)	1 : 1	
Surface tension at 23°C	approx. 35.7 mN/m	DIN ISO 1409

	Without water contact	With 1% water (based on the A component)	With 2% water (based on the A component)	Norm
Mixed viscosity (at 23°C) in mPa*s	60-90	60-90	60-90	DIN EN ISO 2555

Reaction data without water contact	20 °C	23 °C	Norm
Pot life (String gel time)	approx. 135 min	approx. 130 min	DIN EN ISO 2555:2000-01
Processing time	approx. 30	approx. 30 min	DIN EN ISO 9514
Foam factor	1	1	PV_FW16

Reaction data (at 23°C)	With 1% water (based on the A component)	With 2% water (based on the A component)	Norm
Pot life (String gel time)	approx. 60 min	approx. 30 min	DIN EN ISO 2555:2000-01
Foam factor	approx. 2	approx. 2.5	PV_FW16

Properties of the polyurethane resin		Norm
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

4. Composition and properties

WILLPUR® CL - A is a mixture of various polyols and additives that reacts with component B to form an elastic resin. **WILLPUR® CL - B** is a modified polyisocyanate.

5. Preparation/Processing

Both components are mixed in a ratio of 1 : 1 (parts by volume) using The material is pumped directly from the containers using two-component injection pumps and mixed homogeneously by a static mixer. Injection takes place via packers or lances The two-component injection pump automatically ensures a mixing ratio of 1:1.

Alternatively, due to its long reaction time, the product **WILLPUR® CL** can also be used with One-component injection pump. To do this, the components are mixed homogeneously (without streaks) in a dry and clean container using a slow-running agitator. The mixture is then added to the pump and processed within the processing time

To shorten the reaction time, the catalyst **WILLADD® CL** can be added to the A component. The exact reaction times can be found in the pot life table.

Pot life depending on the amount of **WILLADD® CL**

Quantity WILLADD® CL [g]	Pot life [min : sec]
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 measured at 23°C without water contact; standard ASTM D7487
Catalyst addition related to 20 kg A-component

6. Safety notes

WILLPUR® CL -A and **WILLPUR® CL -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.

7. Storage

At least six months from date of delivery or twelve months from date of production when stored in a dry place between 15°C and 25°C. The minimum durability is reflected by the batch number on the container.

8. Delivery form

	WILLPUR® CL - A (item no.)	WILLPUR® CL - B (item no.)
1000 litre IBC	1000 kg (WPUR-CL-1-A1000)	1200 kg (WPUR-CL-1-B1200)
200 litre drum	200 kg (WPUR-CL-1-A200)	240 kg (WPUR-CL-1-B240)
20 litre tin can	20 kg (WPUR-CL-1-A20)	24 kg (WPUR-CL-1-B24)
10 litre tin can	10 kg (WPUR-CL-1-A10)	12 kg (WPUR-CL-1-B12)

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+ GmbH

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



**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

Drinking water test report based on KTW-BWGL April 2022, JenaBios GmbH Sept. 2023

Determination of identifying properties and performance characteristics of the crack filler **WILLPUR® C / WILLPUR® CL** according to DIN EN 1504-5:2013, MFPA Leipzig Sept. 2019

WILLPUR® C / WILLPUR® CL, Investigation of the elution behaviour of polyurethane-based injection resins, MFPA Leipzig Oct. 2019

11. Legal notes

***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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