

WILLGEL® PRO

3-component acrylate gel

CE marking WILLGEL® PRO/ WILLGEL® POLY according to EN 1504-5

1. Applications

WILLGEL® PRO is a low-viscosity, methacrylate-based hydrogel with an adjustable reaction time that hardens into a rubber-like, expandable product and is used for sealing and stabilising floors, concrete and masonry.

Due to the water-like viscosity of the mixed product, **WILLGEL® PRO** penetrates easily into all types of substrates and is used for the following applications

- Veil injection
- Masonry injection
- Subsequent horizontal barrier
- Soil stabilisation
- Joint and gap injection
- Crack and injection hose grouting (*in reinforced concrete structures in combination with WILLGEL® POLY*)

2. Substance data*

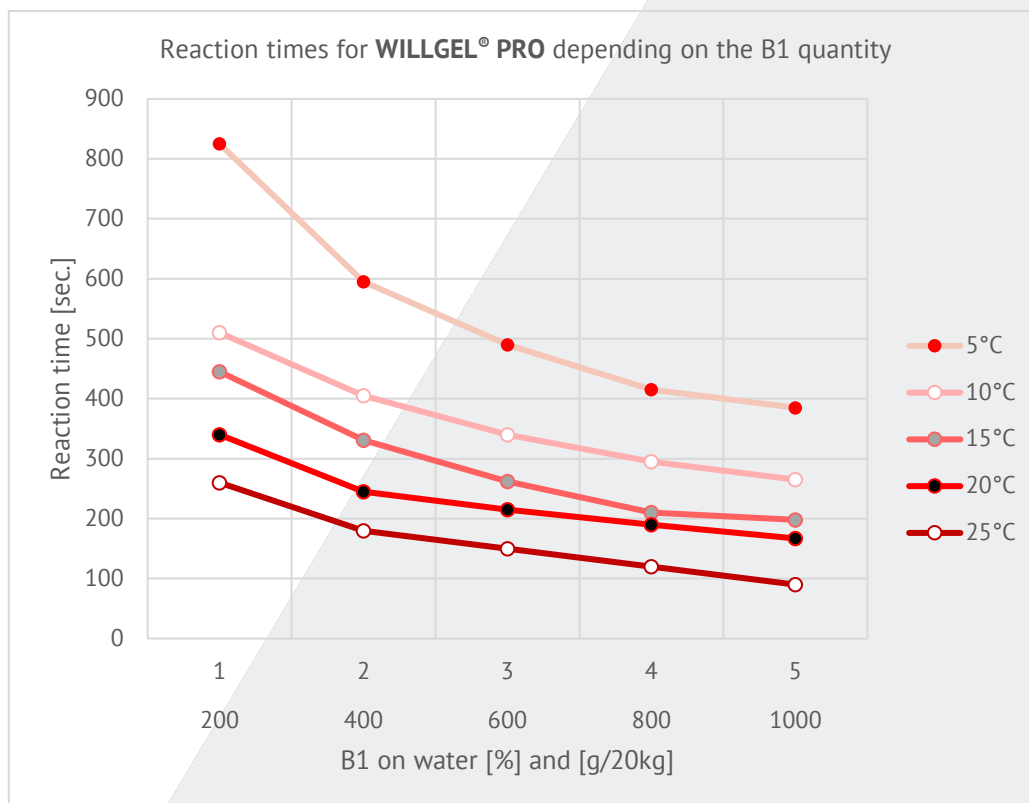
WILLGEL® PRO		-A1	-A2	-B	Norm
Density at 20°C	g/cm ³	1.00 - 1.10	0.928 - 0.938	1.68	DIN 51757
Appearance		clear liquid	slightly yellowish	white powder	
Odour		Characteristic acrylic	Amin	odourless	

3. Reaction and mechanical data*

WILLGEL® PRO - Mixture		Mixing ratio	Norm
Components A1 : A2	Weights	20 : 1	
Component B : Water	Weights	0.4 : 20	
A : B	Volume parts	1 : 1	
Mixed viscosity at 20°C	mPa*s	2.4	PV_FW20

WILLGEL® PRO - camber time* depending on the B1 dosage								Norm
B1 on water			Application temperature					
g/20 kg	%		5°C	10°C	15°C	20°C	25°C	
200	1	Sec.	825	510	445	340	260	PV_FW22
400	2	Sec.	595	405	331	245	180	PV_FW22
600	3	Sec.	490	340	262	215	150	PV_FW22
800	4	Sec.	415	295	210	190	120	PV_FW22
1000	5	Sec.	385	265	198	167	90	PV_FW22

*The entire mass has gelled during the setting time (also known as gelling time) and can no longer be conveyed.



It is possible to speed up reaction times, replace the **WILLGEL® PRO -A2** with **WILLGEL® FAST** (see technical data sheet WILLGEL® FAST).

In order to achieve higher final mechanical properties, e.g. adhesion, tear resistance and low sensitivity to dry-wet cycles, it is possible to replace the water on the B-side with **WILLGEL® POLY** (see technical data sheet WILLGEL® POLY).

4. Composition and properties

WILLGEL® PRO -A1 is a mixture of methacrylates, **WILLGEL® PRO -A2** is an amine-type catalyst and **WILLGEL® PRO -B** is an inorganic water-soluble salt.

The correct combination of the components together with water or **WILLGEL® POLY** results in a low-viscosity end product with good chemical resistance to many acids, alkalis, solvents, fuels, etc. During the reaction and when cured, **WILLGEL® PRO** does not release any toxic substances into the soil or groundwater.

Product components not incorporated in the course of the reaction are rapidly and completely biodegradable.

5. Preparation/Processing

Processing

The A2 component is completely transferred to the A1 container and mixed for approx. 3 minutes. The B component is transferred to an appropriate container and filled with 20 litres of tap water, mixed with a wooden paddle (do not use a metal stirrer) for approx. 3 minutes and completely dissolved.

In special cases (e.g. for joint injection), **WILLGEL® POLY** is used instead of water to mix the B component. Care must be taken here, that the B component dissolves completely in the **WILLGEL® POLY**. To ensure this, it is recommended to fill the container with the B component with water and mix until the salt is completely dissolved. This solution is then added to the **WILLGEL® POLY** and mixed homogeneously.

The ready-to-use A and B sides prepared in this way are processed at a mixing ratio of 1:1 (parts by volume) and must be processed within approx. 8 hours.

Recommended pump technology: Air-operated, three-component piston pumps made of stainless steel, e.g. *WILLPUMP AGK 3*, *DESOI AirPower S25-3C*, *WIWA INJECT 14025* or equivalent.

Application temperature

The recommended processing temperature is between 5°C and 40°C.

Material consumption

The consumption depends on the respective application.

For further information on application areas, planning principles and injection procedures, please contact our technical sales department.

6. Safety notes

WILLGEL® PRO -A1, **WILLGEL® PRO -A2** und **WILLGEL® PRO -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

12 months after production in original packaging when stored in dry conditions between 10°C and 25°C, protected from frost, heat, and direct sunlight. The minimum durability is reflected by the batch number on the container.

8. Delivery form

WILLGEL® PRO	Container	Item no.
-A1	20 kg plastic canister	WGEL-PRO-A1-20
-A2	1 kg plastic bottle	WGEL-PRO-A2-1,0
-B	0.4 kg plastic bottle	WGEL-PRO-B-0,4

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

Determination of the identification properties and performance of the crack filling material **WILLGEL® PRO** according to DIN EN 1504-5:2005. INSTITUT IGH, d.d. Zagreb (HR) 2022.

WILLGEL® PRO (orient. Column test with reference to the DIBt guideline "Assessment of the effects of building products on soil and groundwater");
Hygiene Institute Gelsenkirchen 2022.

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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