WILLGEL® SWIFT

3-component acrylate gel

CE marking WILLGEL® SWIFT / WILLGEL® POLY in accordance with EN 1504-5

1. Applications

WILLGEL® SWIFT is a low-viscosity methacrylate-based hydrogel with an adjustable reaction time that hardens into a highly flexible product with high elasticity and is used for waterproofing all types of structures in contact with the ground and for stabilising geological formations (e.g. sands).

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

- Veil injection
- Soil stabilisation
- Joint and gap injection, e.g. expansion joints (when using the polymer dispersion WILLGEL® POLY in the B component)
- Stopping water inflows
- Sealing in microtunnelling

2. Substance data*

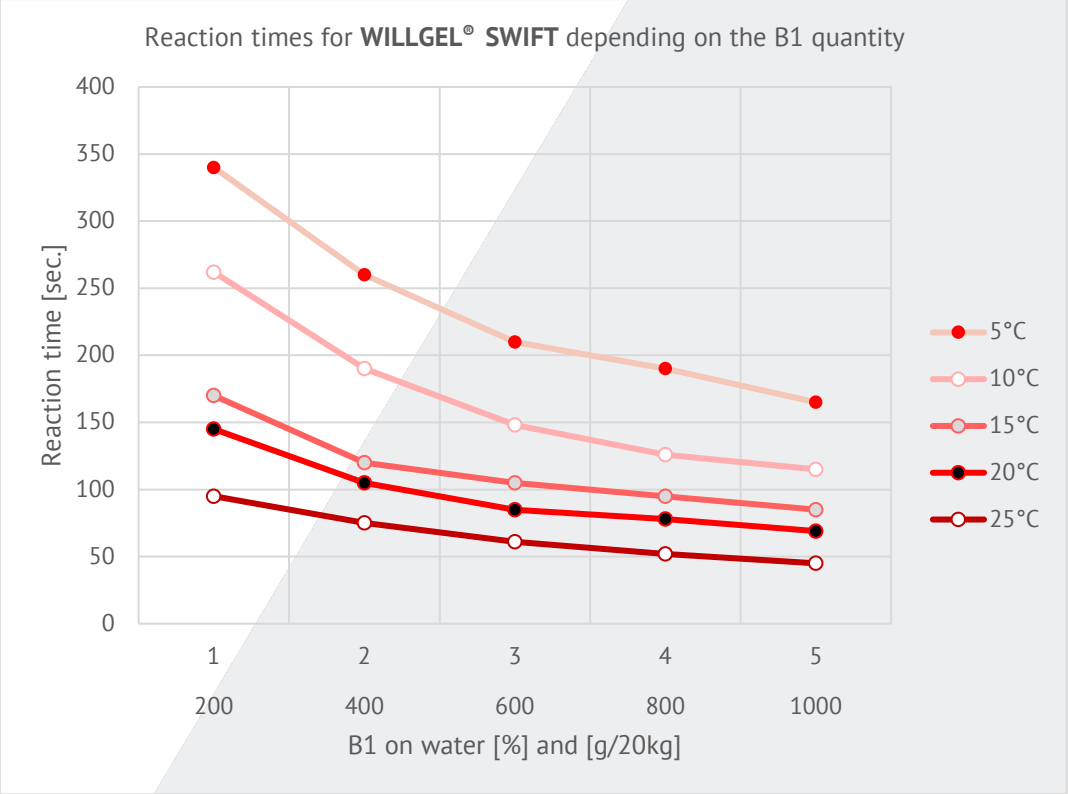
WILLGEL® SWIFT		**-A1**	**-A2**	**-B**	**Norm**
Density at 20°C	g/cm³	1.10 – 1.30	0.928 – 0.938	1.68	DIN 51757
Appearance		clear liquid	slightly yellowish	white powder	
Odour		odourless	Amine	odourless	

3. Reaction and mechanical data*

WILLGEL® SWIFT - Mixture		**Mixing ratio**	**Norm**
Components A1 : A2	Parts by Weight	20 : 1	
Component B: Water (POLY)	Parts by weight	0.4 : 20	
A : B	Parts by volume	1 : 1	
Mixed viscosity at 20°C	mPas*s	9	PV_FW20

WILLGEL® SWIFT - camber time* depending on B1 dosage								Norm
B1 on water			Application temperature					
g/ 20 kg	%		5°C	10°C	15°C	20°C	25°C	
200	1	Sec.	340	262	170	145	95	PV_FW30
400	2	Sec.	260	190	120	105	75	PV_FW30
600	3	Sec.	210	148	105	85	61	PV_FW30
800	4	Sec.	190	126	95	78	52	PV_FW30
1000	5	Sec.	165	115	85	69	45	PV_FW30

By the camber time (also gel time) the whole mass has gelled and can no longer be conveyed.



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® SWIFT -A1 is a mixture of methacrylates, **WILLGEL® SWIFT -A2** is an amine-type catalyst and **WILLGEL® SWIFT -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® SWIFT** 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 to ensure 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 for as long as necessary,
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® SWIFT -A2 and **WILLGEL® SWIFT -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® SWIFT		**(item. no.)**
-A1	20 litre plastic canister of 20 kg	WGEL-SWIFT-A1-20
-A2	1 litre plastic bottle à 1kg	WGEL-SWIFT-A2-1.0
-B	0.5 l plastic bottle à 0.4 kg	WGEL-SWIFT-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
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

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

WILLGEL® SWIFT (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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