

## Flexible hydroactive grout for stopping leaks through joints and cracks

### DESCRIPTION



Aquapur Flex is a polyurethane system that, upon reaction with water, gives a foamed flexible material. Aquapur Flex is delivered as a 2-component pack: Aquapur Flex resin and Aquapur Flex accelerator.



### APPLICATIONS

- Water leaks
- Joints in concrete structures, with possible movement
- Joint and void filling
- Moderate size crack filling, where surface sealing alone is not suitable

### PROPERTIES

- Non flammable product
- Injected with 1-component polyurethane equipment
- Long lasting flexible properties.
- Water stopping material



### TECHNICAL DATA

#### INFORMATION ON THE PRODUCT BEFORE USE

	Aquapur Flex Resin	Aquapur Flex Accelerator
<b>Chemical description</b>	Aromatic polyurethane prepolymer	Polyurethane catalyst solution
<b>Physical state</b>	Liquid	Liquid
<b>Packaging</b>	Metal container 200 kg 25 kg	Metal container 20 kg 1 kg
<b>Non-volatile content (%)</b>	100%	100%
<b>Flash point</b>	>100°C	>100°C
<b>Colour</b>	Light brown	Almost colourless
<b>Density</b>	Temp (°C)    Density (g/cm3) 25            1,06	Temp (°C)    Density (g/cm3) 25            0,89
<b>Viscosity</b>	Temp (°C)    Viscosity (mPa.s) 25            722	Temp (°C)    Viscosity (mPa.s) 25            30
Aproximate Brookfield	10            2500	10            70
<b>Resin/Accelerator mix ratio</b>	Recommended Res=100, Ac=4 by weight Res=100, Ac=4 by volume	
<b>Colour of mixture</b>	Yellow	
<b>Mixture density an viscosity</b>	Temp (°C)    Density (g/cm3) 20            1,00	
	Temp (°C)    Viscosity (mPa.s) 25            500	
	10            2000	

Pot life	Conditions	Pot life (min)
	20°C, 100 g	45
	5°C, 100 g	45

Once mixed, the product surface will react with air moisture, forming a skin. This skin can be punctured and the fresh inner liquid can be reached and used. This liquid is usable for the pot life stated.

<b>Foaming ratio</b>	1 to 10 (by volume, free expansion)
<b>Storage</b>	Keep between 10° and 30°C
<b>Use before</b>	12 months after manufacturing date

#### INFORMATION ON THE FINAL PRODUCT

<b>Description</b>	Flexible polyurethane foam
<b>Colour</b>	white
<b>Density</b>	62 kg/m3 (free expansion)
<b>Hardness (shore)</b>	< 10A (free expansion)
<b>Adhesion</b>	0,2 N/mm2 (EN 1542:2000, free expansion) 0,3 N/mm2 (EN 1216-2:2006, free expansion)
<b>Watertightness</b>	Complete at pressures up to 0,7 MPa
<b>Water absorption</b>	450%, free expansion. 30% at 300 kg/m3 final density

### SUPPORT REQUIREMENTS

Cracks to be filled must be dust free, with no loose parts. Water inside is needed for a correct foaming reaction.

### RECOMMENDED AMBIENT CONDITIONS

High temperature and humidity conditions promote a surface skin formation in the Resin/Accelerator mixture. This hard skin can be punctured to reach the fresh inner liquid, which can be injected as usual. The surface hardened product, however, must be discarded as a waste. Low support temperatures will slower the foaming reaction. No reaction takes place if in contact with ice. Recommended support temperature: 5°C to 40°C.

### SUPPORT PREPARATION

Some water can be previously injected if not enough water is found inside the cracks to be filled.

### MIXING

Stir the Accelerator component before use. Pour the Accelerator component, in the recommended amount into the Resin container (Resin 100/Accelerator 4). No other product must be added, such as water or solvents. Stir and mix at low speed for two minutes. Keep in mind that, at low temperatures or in contact with salt, foaming reaction may be slower. In this case, a higher Resin/Accelerator ratio is advisable. Maximum recommended ratio: Resin 100/Accelerator 8..

### APPLICATION

Check Resin/Accelerator ratio and mixing by making a small test before starting real job. Use specific injection grouting equipment. Place one-way injectors, in the crack spaced 20 or 30 cm each. Use all the mixture shortly after mixing.

In vertical cracks, inject following an upwards sequence. Use several injectors, starting injection by the lower one and allowing the foam to rise through the upper injector before continuing. Clean thoroughly the machine and hoses after use, with special machine oil or Rayston Solvent. It is recommended to keep the machine filled with these cleaning fluids when not in use.

### RECOMMENDED AMOUNT

Amount to inject is depending on the fissure volume and the amount of water leaked. Ensure sufficient product is injected so that foam is effectively forming and filling all the cavities.

### FOAMING TIME

Reaction time is dependent on the liquid temperature and the amount of product injected.  
At 20°C, 30 g, 5% water

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Beginning: 24 s after mixing  
End of foaming: 70 s after mixing

At 10°C, 30 g, 5% water

Beginning: 35 s after mixing  
End of foaming: 100 s after mixing

### RETURN TO SERVICE

Usually, foam is finished immediately after reaction and stops the flow of water.

### TOOL CLEANING

Aquapur Resin and Accelerator, before mixing or when the mixture is still liquid may be cleaned with solvent Rayston, acetone or alcohol. Once reacted, the foam cannot be dissolved.

### FAQS

Problem	Question	Cause	Solution
No foaming, slow reaction	Enough accelerators? Low temperature?	Low temperature	Increase Accelerator ratio
Little foaming	Water?	No water in the crack, or mixing difficulties	Ensure wetting with extra water Increase pressure to ensure turbulence and mixing
Leak does not stop	Enough foam density?	Little amount injected. Low foam density	Inject higher amounts of product

### SAFETY

Aquapur Flex contains isocyanates, corrosive amines and other hazardous chemicals. Always follow instructions provided with the Material Safety Data Sheet. As a general rule, provide enough ventilation and avoid contact with skin and eyes. This product is intended to be used only for the uses and in the way here described. This product is to be used only by industrial or professional users. It is not suitable for DIY-type uses

### ENVIRONMENTAL PRECAUTIONS

Empty containers must be handled taking the same precautions as if they were full. Containers must be considered as hazardous waste, to be transferred to an authorized waste manager. If there is some residual product in the containers, do not mix it with other substances without checking for possible dangerous reactions.

### OTHER INFORMATION

The information contained in this data sheet, as well as our advice, both written as verbal or provided through testing, are based on our experience, and they do not constitute any product guarantee for the installer, who must consider them as simple information.

We recommend to study deeply all information provided before proceeding to the use or application of any of our products, and strongly advise to conduct tests "on-site" in order to determine their convenience for a specific project. Our recommendations do not exempt of the obligation of installers to deeply study the right application method for these systems before use, as well as to conduct as many preliminary tests as possible should any doubt arise. The application, use and processing of our products are beyond our control, and therefore under the exclusive responsibility of the installer. In consequence, the installer will be the only responsible of any damage derived from the partial or total in-observation of our indications, and in general, of the inappropriate use or application of these materials.