PU Injection Foam Resins

WEBAC® 151

Range of application

- Filling of gaps and cavities/voids in masonry and concrete in case of water ingress
- Solidification of highly fissured masonry (e.g. natural stone masonry)
- Anchor head sealing for the rear anchoring of drilling anchors in special civil engineering
- Shaft repair

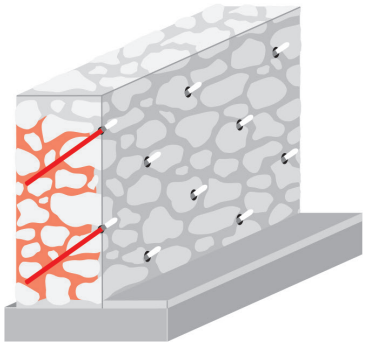
Properties

- Polyurethan-based injection foam resin
- Mixing ratio of 1 : 1 to 1 : 10 parts by volume
- Consistency adjustable:
  - Soft
  - Flexible
  - Solid
- Variable reaction time

Test certificates

- Test certificate according to KTW recommendations: D1 (large-surface sealants)
- Environmental Product Declaration (EPD)
- List of chemical resistance

Example



Filling of cavities/voids in masonry

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Technical Information

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Technical data

		Values					
Mixing ratio		1 : 1 parts by volume		1 : 5 parts by volume		1 : 10 parts by volume	
Bulk density foam		≈ 56 kg/m³		≈ 33 kg/m³		≈ 36 kg/m³	
Density, 20 °C (DIN ISO 2811)	**Comp. A** **Comp. B**	≈ 0.97 g/cm³ ≈ 1.1 g/cm³					
Pot life (WEBAC test specification based on DIN ISO 9514)		**23 °C** > 120 min		**12 °C** ≈ 120 min			
Application temperature Building structure and material		> 5 °C					
Viscosity of mixture (WEBAC test specification based on DIN ISO 3219)	**parts by volume** **1 : 1** **1 : 5** **1 : 10**	**23 °C** ≈ 1,130 mPa·s ≈ 300 mPa·s ≈ 240 mPa·s		**12 °C** ≈ 1,160 mPa·s ≈ 480 mPa·s ≈ 410 mPa·s			
Foam reaction with 10% water Start ¦ End	**parts by volume**	**20 °C**		**12 °C**		**5 °C**	
	1 : 1	≈ 8 s	≈ 30 s	≈ 10 s	≈ 35 s	≈ 16 s	≈ 42 s
	1 : 5	≈ 15 s	≈ 70 s	≈ 20 s	≈ 80 s	≈ 25 s	≈ 95 s
	1 : 10	≈ 20 s	≈ 100 s	≈ 35 s	≈ 160 s	≈ 45 s	≈ 190 s
Expansion with 10% water (DIN EN 14406)	**parts by volume** **1 : 1** **1 : 5** **1 : 10**	≈ 10 – 15-times ≈ 30 – 35-times ≈ 25 – 30-times					
Watertightness (DIN EN 14068)		> 1 bar					
GISCODE		PU40					
EPD		EPD-FEI20220021-IBG1-EN					
Exposure scenarios according to REACH		Assessment of industry standard application					

The specified data are values determined under laboratory conditions and are subject to a certain fluctuation. Deviations are possible in practice depending on the respective object situation.

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Preparatory work

Structural analysis:

- Preparation of a building condition analysis to determine the actual condition of the structure/component
  - Structure condition
  - Hydrodynamic and hydrostatic conditions
  - Water load
  - Salt load
- Determine the necessary key figures for soil injections (soil expertise/porosity etc.)

This results in:

- Planning of suitable remediation measures in accordance with the applicable rules and standards
- Selection of suitable material
- Selection of packers/lances
- Arrangement of the boreholes and placement of the packers/lances
- Carrying out a test injection if necessary

Application instruction

- Injection by 1C pump
- Mixed material is moisture-sensitive; contact with water (e.g. rain) must be avoided
- If a prepared mixture is not used immediately, air humidity may cause a skin on the surface; this skin must be removed prior to further use (do not mix into the material!)
- Make sure the filter in the hopper is clean
- The mixture must be used completely within pot life
- Only use pure WEBAC material without any residues of cleaning agents or other impurity
- The reaction speed is influenced by the temperature of the material and the building structure – higher temperatures accelerate, lower temperatures slow down the reaction

Mixing

- Empty component A and B at the given mixing ratio into a mixing vessel (make sure that the containers are completely empty) and mix homogenously
- Transfer mixed material in a new mixing vessel, stir well again and fill into the hopper of the pump

Application

- Adapt the injection pressure to the nature and condition of the building structure, limited to the water-bearing areas
- The injection is carried out in intervals, preferably in the rear third of the structural element's cross section. Conclusions can be drawn from the reaction of the material (surface emergence etc.) to decide whether to continue or to stop the injection
- Immediately after filling with WEBAC PU injection foam resins, carry out a subsequent sealing injection with PU resins using additional drill hole packers

Final work and cleaning

- Once the material has cured remove the packers
- Clean the drill holes and close with suitable non-shrinking mortar
- Clean the component surface of patched cracks, grind flat if necessary
- Clean the pump with **WEBAC® Cleaner A**
- Use **WEBAC® Cleaner B** for dissolving cured material but never for flushing pumps
- Observe the technical data sheet of the injection pump and cleaners used
- For detailed information refer to the operating manual of the injection pump

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Product data

	Comp. A	Comp. B
Delivery form	19.5 kg 10 kg 5 kg	22 kg 11 kg 5.5 kg
Storage	• Between 5 °C and 30 °C • Protected from moisture • In original, sealed containers	
Compatibility	• Compatible with concrete, steel, foil, cable sheathing and WEBAC injection materials	
Resistance	• Resistant to salts harmful to the building, alkalis and acids in common concentrations in building structures	

Occupational safety

The safety regulations of the industrial trade associations and the WEBAC Safety Data Sheets are to be observed at all times when working with this product. Safety data sheets according to Regulation (EC) No. 1907/2006 (REACH) must be accessible to all persons responsible for occupational safety, health protection and the handling of materials. For further information, please see the separate information sheet “Occupational Safety” in our product catalog or www.webac.com.

Waste disposal

In Germany, empty containers can be disposed of via “Interzero Circular Solutions Germany GmbH” observing the respective terms and conditions. It is not possible to dispose of containers at production facilities or delivery warehouses. For more detailed information, please see the separate information sheet “Disposal Notes” in our product catalog or www.webac.com and the safety data sheets.

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