WEBAC® 157

PU Injection Foam Resin

Injection System

Our Formula – Your Solution

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Range of application

WEBAC®157 is designed for the quick temporary closing, sealing and filling of damp and water-bearing cracks, cavities and gaps under hydrostatic pressure in concrete, brick and natural stone structures. It is suitable for use in shaft constructions, for sealing water tanks, canals, sewers and other structures found in hydraulic engineering. Thanks to its flexible foam structure **WEBAC®157** is also suitable for building components where minor movements are to be expected.

Type of material

- 2-comp. injection foam resin based on polyurethane, MR 1:1 (parts by volume)
- elastic foam structure
- fulfills the requirements of the KTW recommendations in contact with potable water (test certificate)

Further information

- **WEBAC® Brochures**
- Test certificates are available on request.
- Please observe existing regulations on the respective usage.

Properties

WEBAC®157 is a high-grade, low viscosity, PU injection foam resin which expands and cures to form a surface-dense, elastic foam characterized by its open-pore, fine cellular structure upon contact with water. Given free expansion, **WEBAC®157** expands its volume up to 15 times. Thanks to its low viscosity, its water-reactive components and high capillary activity in damp or water-bearing cracks, the material is ideal for quickly and temporarily stopping water. After contact with water, foam formation begins after approx. 20 seconds (+20 °C). The foam reaction can be accelerated by using **WEBAC® B15**. Sufficient water contact is required for the reaction and optimum foam formation of the mixed material. The reaction speed (foam formation) is influenced by the inherent temperature of the mixed material, the hydrodynamic conditions, the temperature of the building structure and that of the contact water. Higher temperatures accelerate, lower temperatures slow down the reaction. **WEBAC®157** is compatible with concrete, steel, foils, cable coatings and **WEBAC® Injection Materials**.

Preparatory work

A structural analysis must be carried out prior to the injection. The extent of the examination and the type of documentation depend on the nature of the building structure, the type of cracks and their significance for the building structure. The moisture content and the crack characteristics (type, course, width, width modification, etc.) must be determined to assess the cause of damage and to select suitable filling materials (see ZTV-ING, part 3, section 5, Annex A, or Guidelines of Concrete Repair of the German Committee for Reinforced Concrete, part 2, Tab. 6.1–6.4). The positioning of drill-holes and the selection of drill-hole packers depend on the results of these examinations. Install the drill-hole packers in such a way that the injection hose rests comfortably on the fittings; they must be fastened tightly in the drill-holes. In the event of high flow rates, measures may be necessary to reduce the water flow and to prevent the filling material from being washed out (e.g. relief drillings, installation of wooden blocks, etc.).

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Mixing

The containers are provided according to the required mixing ratio of 1:1 (parts by volume). Partial quantities can be measured out in separate vessels by the user.
When using a 1-component (1-c)-pump empty component A and B into a mixing vessel and mix homogeneously (ensure that the containers are completely empty). After mixing, fill the material into the pump's feed container and stir briefly. The mixed material is sensitive to moisture which is why all contact with water (e.g. rain) must be avoided. If a prepared mixture is not used immediately, high air humidity may cause a skin to form on the surface. This skin must be removed prior to further use (do not mix with the material!). The mixture shall be used up within 2 hours.

Application

Apply **WEBAC®157** by means of a 1- or 2-c-pump (see **WEBAC® Injection Pumps**). Make sure that only pure **WEBAC®157** without any residue from cleaning agents or other foreign matter is injected. The injection pressure depends on the nature of the building, the hydrodynamic and hydrostatic conditions and the desired filling level. Carry out the injection at intervals so that conclusions can be drawn from the reaction of the material (surface emergence etc.) as to whether to continue or to stop the injection process.
To ensure durable and flexible filling and sealing of cracks, a secondary injection with **WEBAC® PU Injection Resins** is necessary depending on the object. Immediately after the injection of **WEBAC®157**, secondary crack injections can usually be carried out via the same drill-hole packers. However, if the secondary injection is carried out several hours later it may be necessary to install new drill-hole packers in different positions.
When using a 2-c-pump (e.g. **WEBAC® IP 2K-F2**) ensure that the volume flow is sufficient so that component A and B are mixed homogenously in the mixing device (static mixer).

Final work

Once the foam or the injection resin used for the secondary injection have cured, remove the packers and close the drill-holes with suitable mineral building materials.

Cleaning agent

Clean the equipment thoroughly with **WEBAC® Cleaner A** any time work is interrupted for a longer period of time and after use.
Use **WEBAC® Cleaner B** for etching all material already cured but not for rinsing and cleaning injection pumps. Provide for adequate ventilation during the cleaning process.
Fill the entire pump system with **WEBAC® Lubricant** in case of long standstill periods.
Please also note when using 2-c-pumps: The mixing device can be rinsed with component A when interrupting work briefly.
Please also observe the technical data sheets of the injection pumps and cleaners used.

Storage

WEBAC®157 must be stored in original, sealed containers at +5 °C to +30 °C protected from moisture.

Waste disposal

In Germany, empty containers can be disposed of via Interseroh observing the respective terms and conditions. It is not possible to dispose of containers at production facilities or delivery warehouses. For information on the disposal of residual material and empty containers, please see the separate information sheet in the Annex to the **WEBAC® Product Catalog** and the safety data sheets.

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Safety precautions

The safety regulations of the industrial trade associations and the **WEBAC®** safety data sheets are to be observed at all times when working with **WEBAC® 157**.

In accordance with Regulation 1907/2006/EC (Annex II) the safety data sheets must be accessible to all persons responsible for occupational safety, health protection and the handling of materials.
GISCODE PU 40

Wear protective clothing, safety gloves and goggles when applying the material and cleaning the equipment. The use of a suitable skin care cream is recommended. After contact with skin wash with soap and water. After contact with eyes rinse immediately with water and seek medical advice at once. Do not allow the material to enter drains or soil unmixed.

Technical data

Type of material	2-comp. PU injection foam resin, fulfills the requirements of the KTW recommendations in contact with potable water	
	Comp. A:	**Comp. B:**
Density (+20 °C)	approx. 1.0 g/cm³	approx. 1.1 g/cm³
Color*	colorless	brown
Viscosity (+23 °C)	approx. 70 mPa·s	approx. 200 mPa·s
Mixing ratio	1:1 parts by volume	
Expansion in volume	up to approx. 15 times given free expansion	
Expansion start (+20 °C)	approx. 20 sec. after water contact	
Expansion end (+20 °C)	approx. 80 sec.	
Workable life	approx. 2 h	
Application temperature	> +5 °C (building component, material)	
Application	injection by 1- or 2-c-pump	
Storage	in original, sealed containers at +5 °C to +30 °C protected from moisture	

The given data are laboratory parameters and may deviate depending on the object and the conditions on site.

**color may vary*

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