PU Injection Resins

WEBAC® 1403

Range of application

- Damp proof course in masonry, especially in case of high water load classes
- Sealing of joint tapes
- Lateral infiltration in concrete
- Connection joints of precast walls
- Sealing of construction joints (waterproofing of gravel nests)
- Foundation pit sealing
- Sealing injections in masonry and low grade concrete (i.a. tamped concrete)

Special properties

- MR 1 : 1
- Capillary obstruction, solidification
- Quick-seal foam structure upon contact with water
- Low viscosity
- Universally applicable, reliable application
- Adjustable reaction time (accelerator **WEBAC® B14**)
- Environmentally safe
- Total solid*

Instruction for use

- Application by 1C or 2C pump

Mixing

Application by 1C pump:

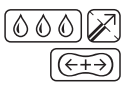
- Empty components A and B into a mixing vessel (make sure that the containers are completely empty) and mix homogenously

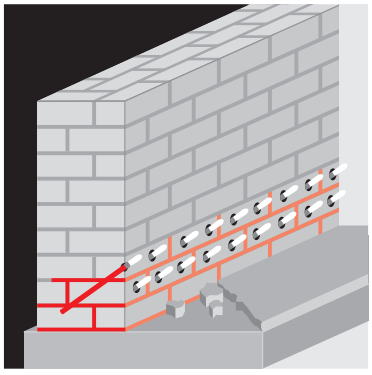
Application by 2C pump:

- No premixing required

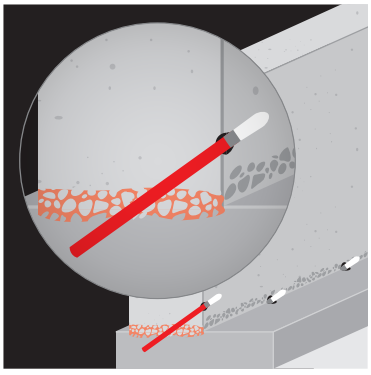
Exemplary applications

Meaning of the icons ▸ WEBAC Product Catalog, www.webac.de or www.webac-chemie.com





Damp proof course in masonry



Sealing of construction joints

*according to test method by Deutsche Bauchemie e.V. (German Industry Association for Manufacturers of Construction Chemicals)

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Technical Information

All the data indicated in this technical data sheet and any related information provided by our employees are of an advisory nature representing our current state of knowledge and in no way binding. As the exact chemical, technical and physical conditions of the actual application are beyond WEBAC's control, this information does not preclude examination of the products and/or procedures for the intended application and surface by the user. WEBAC is thus unable to guarantee results. The user is fully responsible for the observation of existing regulations and conditions when using the products.
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Technical parameters

Technical parameters	Values			
Mixing ratio	1 : 1 parts by volume			
Density, 20 °C (ISO 2811)	**Comp. A**	1.0 g/cm³		
	Comp. B	1.1 g/cm³		
Processing life (WEBAC test specification following ISO 9514)		**30 °C** > 60 min	**23 °C** 90 min	**12 °C** 240 min
Application temperature Building component and material	> 5 °C			
Viscosity of mixture (WEBAC test specification following ISO 3219)		**30 °C** 65 mPa·s	**23 °C** 80 mPa·s	**12 °C** 155 mPa·s
Foam reaction with 5 % water Start · End · Expansion		**21 °C** 2 min · 5 min 30 s · 5-times		
Tear strength · elongation at break 7 d, 21 °C (ISO 527)	0.7 N/mm² · 50 %			
Shore hardness A 7 d, 21 °C (EN 868)	48/43			
Watertightness (EN 14068)	< 2 bar			
Fire behavior	B2 according to DIN 4102-4, 2.3.2			
UBA-KTW	Repair system for containers			
KTW	D1 (large-surface sealants)			
GISCODE	PU40			
EPD	EPD-DBC-20130014-IBG1-D			
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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General Information

WEBAC PU Injection Resins

- Classic polyurethane resins (**WEBAC® 14XX**) are characterized by their high elasticity and good adhesion. Cracks injected with PU injection resins remain leak proof also in case of limited crack width modifications and if exposed to dynamic stress. PU injection resins are also suitable for the restoration of gypsum-based masonry or building constructions (sealing, stabilization and solidification). Based on the active principle of hydrophobizing capillary obstruction WEBAC PU injection resins have a durable sealing effect also in case of high water load classes. An even, closed and therefore watertight pore structure forms upon contact with or when mixed with water.

The PU resins of the new generation (**WEBAC® 16XX**) also allow for structural installation in concrete and masonry structures thanks to their high bending tensile and compressive strength. The products are compatible with masonry mortar, concrete, steel, foil, cable sheathing, metals and WEBAC injection materials. WEBAC PU injection resins are resistant to salts, lyes and acids in concentrations usually found in buildings and structures.

Preparatory work

Structural analysis before the injection:

- Structural condition
- Hydrodynamic and hydrostatic conditions
- Water loads
- Salt contamination

In case of pressing water it must be decided depending on the object if a preliminary injection of PU injection foam resin is required.

Please also note when repairing cracks:

- Crack characteristics (crack type, crack course, crack width, crack width modification, etc.)
  - see ZTV-ING, part 3, section 5, Annex A, or Guideline of Concrete Repair, part 2, Tab. 6.1–6.4
- Significance of cracks for building structure

This provides information on:

- Cause of damage
- Selection of suitable filling materials
  - The consumption depends on the theoretically calculated crack or cavity volume
- Choice of drill-hole packers
- Positioning of drill holes
  (for more detailed information, see e.g. WEBAC Brochure "Sealing of Masonry")

All loose plaster layers in the area of the injection level must be removed and all porous joints and defective brickwork areas be patched with quick-setting cement. The cracks and voids to be filled must be free of dirt, oil, grease and other separative substances. Clean the crack edges.

Mixing

- The containers are provided according to the required mixing ratio
- Partial quantities can be measured out in separate vessels
- The mixture must be used up within the specified processing life

Please observe the mixing instructions for the respective material.

Application

The injection pressure depends on the nature and condition of the building structure (< 10 bar for low pressure method, starting at approx. 20 bar for high pressure method). Continue the injection procedure until resin can be seen emerging from

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the brickwork into the area of the adjacent packers and an even material distribution has thus been obtained. The reaction speed is influenced by the temperature of the material and the building component. Higher temperatures accelerate, lower temperatures slow down the reaction. Only inject pure WEBAC PU injection resin without any residues from cleaning agents or other impurity.

Application by 1C Pump:

- Transfer the mixed material to the hopper
- Stir briefly

Application by 2C Pump:

- Provide for a sufficient volume flow to ensure that components A and B are mixed homogenously in the mixing device (static mixer)

Final work

- Upon conclusion of the injection and the curing process of the WEBAC PU injection resin, remove the packers
- Close drill-holes with suitable mineral building materials

Cleaning

- **1C Pump:** clean the equipment with **WEBAC® Cleaner A** any time work is interrupted for a longer period of time and after use
- **2C Pump:** the mixing device can be rinsed with component A any time work is interrupted for a short period of time. Clean the equipment 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 never for rinsing pumps
- Fill the entire pump system with **WEBAC® Lubricant** or **hydraulic oil** in case of long standstill periods
- Observe the technical data sheets of the injection pumps and cleaners used
- Refer to the operating manual of the injection pump for more detailed information

Storage

- Between 5 °C and 30 °C
- Protected from moisture
- In original, sealed containers

Occupational safety

The safety regulations of the industrial trade associations and the WEBAC Material Safety Data Sheets are to be observed at all times when working with this product. Safety data sheets in accordance with Annex II to EU Regulation 1907/2006 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”.

Waste disposal

In Germany, empty containers can be disposed of via Interseroh Dienstleistungs 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 “Information on the disposal and return of WEBAC packaging“ and the material safety data sheets.

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