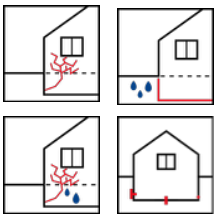
ResinBau

# CrackFlex

## PU 2k flex resin



ResinBau
MADE IN THE EU

ResinBau sp. z o.o.
ul. Frezerów 3, 20-209 Lublin
NIP: 9462710841
BDO: 000548679
e: info@resinbau.eu
t: +48 731 904 000

# Technical Manual

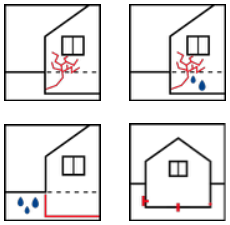
## Elastic, two-component polyurethane injection resin.

CrackFlex is a high-quality, two-component, elastic polyurethane injection resin with very low viscosity, developed for sealing cracks on wet and dry surfaces.

## Properties

- The product does not require water for the reaction. Without water, the material becomes an elastic sealant. In the presence of water, the material foams slightly.
- Excellent adhesion to concrete and metal
- The hardening process does not cause shrinkage, the volume remains the same.
- Does not dry out after hardening
- Does not cause corrosion of metals
- The resin bonds perfectly with ResinBau EasyInject / WaterStopper

## Areas of application



- Injection of cracks in concrete
- For the elastic sealing of wet, damp and dry cracks in walls, floors, concrete structures, and underground structures using injection hoses
- It is characterized by both high ductility and good substrate adhesion, allowing for the filling of very small cracks.
- Cracks filled with CrackFlex resin, thanks to their ductility and elasticity, are able to maintain their tightness even under dynamic loads.
- Injection for stabilizing, sealing, and strengthening walls and other building structures.

## Products specifications

| | Component A | Component B | Mixed |
|---|---|---|---|
| Color | light yellow | dark yellow to light brown | **dark yellow to light brown** |
| Viscosity (23 °C) | 300 ± 50 mPas | 50 ± 20 mPas | **~ 140 mPas** |
| Density (20 °C) | 1,02 g/cm$^3$ | 1,14 g/cm$^3$ | **1,08 g/cm$^3$** |
| Hardness, fully cured (Shore) | | | **60-85** |
| Permissible storage temperature | 10 - 30°C | | |
| Permissible air and substrate temperature | **5 - 40°C** | | |



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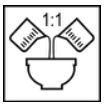
## Optional additional products

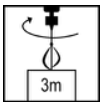
- ResinBau EasyInject / WaterStopper - for blocking active leaks (two-stage injection)
- ResinBau CrackOn.5 - crack-closing mortar
- Hammpack® PI-Cleaner - for cleaning injection pumps
- 1K / 2K injection pump
- Hammpack® injection packers

## Preparatory work for injection

- This product is intended for professional use only.
- Before starting the injection, the condition of the object must be analyzed.
- The substrate must be stable and compact, and must not contain loose elements or substances that reduce adhesion, such as fats, oils, etc.
- Drill holes properly, depending on the work being performed.
- We suggest undercutting or notching and cleaning cracks or loose fragments of joints from construction dust, so that they can be closed superficially with putty (ResinBau CrackOn.5).
- Blow out the holes with compressed air or water.
- Install packers.

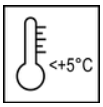
## Preparing the resin




- Mix components A and B (1:1 set). Pour component B into component A in a volume ratio of 1:1. Mix thoroughly using a slow-speed mixer. Remember! Water and moisture, as well as high temperatures, significantly accelerate the reaction time.
- Mix only as much resin as you can process quickly. Fresh resin has significantly less viscosity, which makes it easier to spread in the structure (the resin fills in cracks or saturates the structure more easily).

## Instructions for use




- The temperature of the material, the environment, and the substrate should be above 5°C.
- The processing time at 20°C is 30 minutes.

| | |
|---|---|
| Processing time | 30 min. at 20 °C |
| The time after which the mixture is no longer liquid | 10 h in 12 °C |
| | 6 h in 25 °C |
| Time after which the mixture is completely cured | 7 days in 12 °C |
| | 5 days in 25 °C |

- Prepare the application pump according to the manufacturer's recommendations.
- The pressure at which the resin is dispensed depends on the structure and size of the crack.
- Begin the application at the lowest point of the crack.
- Continue the application until the resin leaks from the adjacent packer (the crack face should be closed).
- This step is necessary to achieve a uniform distribution of the material.
- Stop pumping, disconnect the hose from the packer, and move on to the next one.
- Continue the procedure until the crack is completely filled.



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## Cleaning after work

- Clean the pump and equipment using Hammpack® PI-CLEANER every time work stops for longer than 15 minutes and after completing an application.
- During cleaning, make sure to maintain appropriate safety conditions.
- If the cleaning agent escapes from the injection hose, rinse it with an appropriate amount of Hammpack® PI-SAVER preservative.

## Storage Durability

- Store in a dry place at a temperature of 10°C - 30°C.
- Shelf life is 12 months from the production date in the original, unopened packaging. After opening, the product's lifespan decreases rapidly.

## Safety

- Wear protective glasses, gloves, and clothing. Avoid contact with skin and eyes.
- In case of contact with eyes: rinse thoroughly with clean water and consult a doctor.
- In case of contact with skin: rinse generously with water.
- Component B may react with water or atmospheric moisture, producing gaseous CO2. This may create pressure in a closed package or container that has already been opened.
- Mix the remaining CrackFlex with sand and dispose of the mixed material according to local regulations.

*EN: Danger - H315 - Irritates the skin; H317 - May cause an allergic skin reaction; H319 - Irritates the eyes; H332 - Harmful if inhaled; H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled; H335 - May cause respiratory irritation; H351 - Suspected of causing cancer; H373 - May cause damage to organs through prolonged or repeated exposure. - P201 - Obtain special instructions before use; P202 - Do not use before reading and understanding all safety precautions; P260 - Do not breathe dust, smoke, gas, mist, spray or vapour; P264 - Wash hands, forearms and face thoroughly after use; P271 - Use only outdoors or in a well-ventilated area; P272 - Do not remove contaminated work clothes from the workplace; P280 - Wear safety glasses, face protection, protective clothing, gloves; P284 - Wear respiratory protection; P302+P352 - IF ON SKIN CONTACT: Wash with plenty of soap and water; P304+P340 - IF INHALED: Remove person to fresh air and ensure breathing; P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if accessible and easy to remove. Rinse continuously; P308+P313 - IF exposed or contacted: Seek medical advice/attention; P312 - If you feel unwell, contact a POISON CENTER or doctor; P321 - Specific treatment (see additional first aid instructions on this label); P332+P313 - If skin irritation occurs: Seek medical advice/attention; P333+P313 - If skin irritation or rash occurs: Seek medical advice/attention; P337+P313 - If eye irritation persists: Seek medical advice/attention; P342+P311 - If respiratory symptoms occur: Contact a POISON CENTER or doctor; P362+P364 - Remove contaminated clothing and wash before reuse; P403+P233 - Store in a well-ventilated place. Keep container tightly closed; P405 - Store locked up; P501 - Dispose of contents/container at hazardous or special waste collection point in accordance with local, regional, national and/or international regulations. - Contains: diphenylmethane-4,4' diisocyanate; Diphenylmethane diisocyanate, isomers and homologues.*



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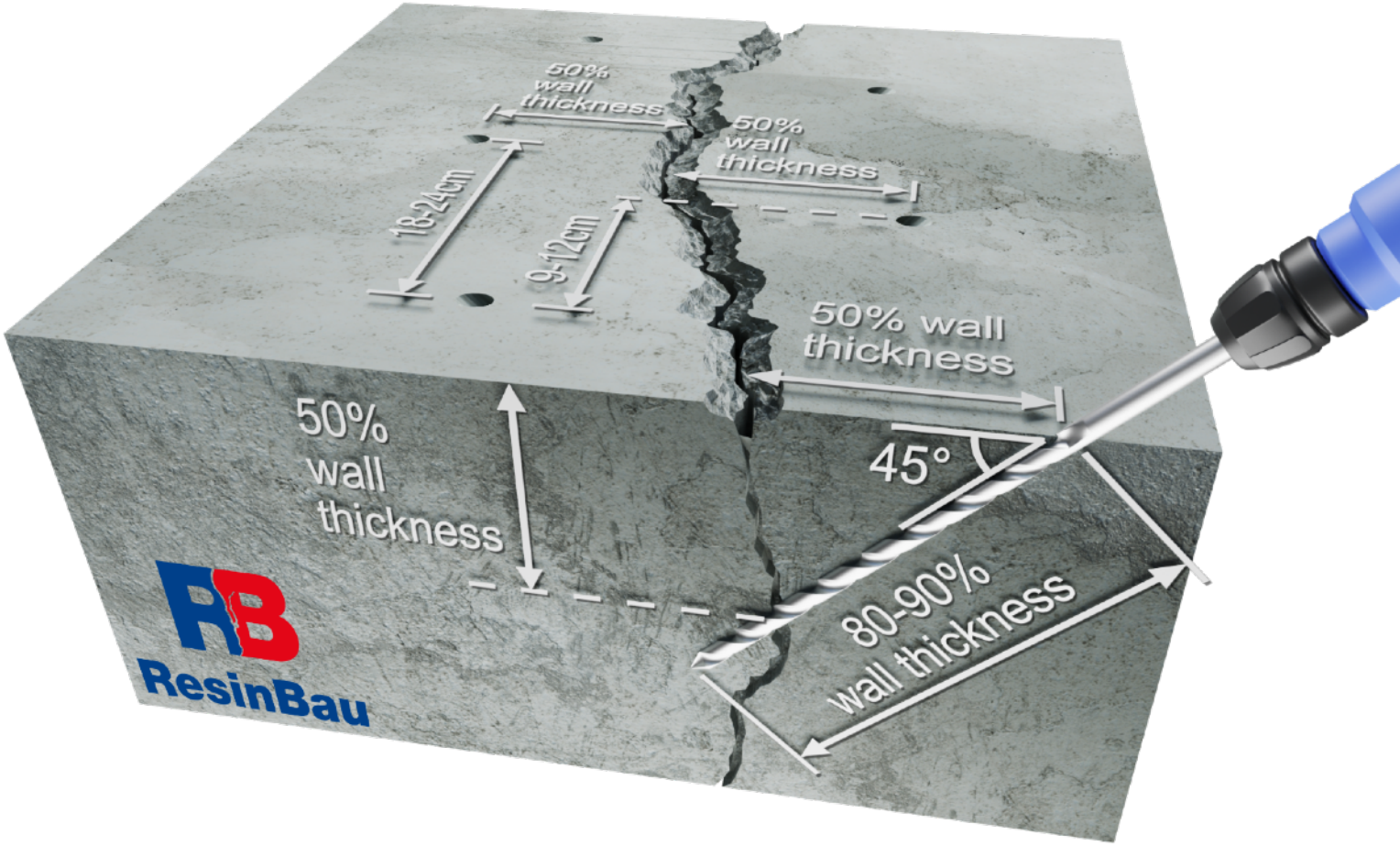

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