

# 0749 / EN 1504-5 U(D1)W(1)(1/2/3)(5/30)

TECHNICAL DATASHEET

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# PC<sup>®</sup> LEAKINJECT 2K FLEX 6811 LV

## Flexible Water Sealing 2 component Polyurethane Injection Resin

#### 1. Description

Two component MDI-based polyurethane injection resin with very low viscosity. **PC® Leakinject 2K Flex 6811 LV** reacts in wet or dry cracks and joints. When **PC® Leakinject 2K Flex 6811 LV** comes in contact with water, the material will react and starts to foam. In absence of water, **PC® Leakinject 2K Flex 6811 LV** will react into a flexible seal.

## 2. Applications

Water sealing of cracks and joints in walls, floors, concrete constructions, sewers,... Can be used both for dry and wet cracks. **PC**<sup>®</sup> **Leakinject 2K FLEX 6811 LV** does not need water in order to react. The 2 components react with each other. Important property of this material is its excellent adhesion to concrete and metal and this without the use of a primer. The curing process of the **PC**<sup>®</sup> **Leakinject 2K Flex 6811 LV** does not cause any shrinkage, so the volume remains the same. This completely cured 2K PU resin does not swell in contact with water, does not dry out and is not corrosive for metals. In order to obtain optimal water sealing properties of concrete constructions the **PC**<sup>®</sup> **Leakinject 2K Flex 6811 LV** is sometimes combined with other PU water reactive foams (for example PC<sup>®</sup> Leakinject 6816/E).

For applications with a longer pumping time, the slower reacting resin  $PC^{\circledast}$  Leakinject 2K Flex 6811 LV LPL exists. For more information, contact your local dealer.

## 3. Properties

- Injection in wet and dry structures.
- Injection of very fine cracks.
- Elastic water sealing of cracks and joints in walls, floors and concrete constructions.
- Injection of injection hoses.

## 4. Technical data (typical values)

- A-component:
  - Appearance: colourless liquid
  - Viscosity (20° C): 144 mPas
  - Density: 1.005 g/ml
- B-component:
  - Appearance: dark brown liquid
  - Viscosity (20° C): 62 mPas
  - Density: 1.105 g/ml

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- Mixture:
  - Appearance: brown liquid
  - Initial viscosity (20° C): 118 mPas
  - Density: 1.052 g/ml
- Evaluation of the reactivity at 20 °C: time needed for a mixture of 1 kg to rise in temperature from 20 °C to 40 °C in a 1 l recipient: 28 minutes.
- Pumpable time: 60 minutes at 20 °C.
- Time after which the mixture is not liquid anymore: 10 hours at 12 °C, 6 hours at 25 °C
- Time after which the mixture is completely cured: 7 days at 12°C, 5 days at 25°C
- Mixing ratio (weight): 1.2 kg A / 1.32 kg B.
- Loss of deformation ability after cyclic compression test: < 20%.
- Shore A (after complete curement): 72.
- Watertightness under pressure (EN 14068): waterproof at 2 x  $10^5$  Pa.
- Compatibility with concrete (EN 12637-1): pass (compatible with concrete).
- Modulus of elasticity (EN ISO 527, after 5 days at 25 °C): 6.6 MPa.
- Tensile strength (EN ISO 527, after 5 days at 25 °C): > 3 N/mm<sup>2</sup>.
- Elongation at break (EN ISO 527, after 5 days at 25 °C): 128 %.
- Injectability into a dry sand column (EN 1771, 0.1 mm 0.3 mm): easy to inject.
- Injectability into a wet sand column (EN 1771, 0.1 mm 0.3 mm): easy to inject.
- Adhesion and elongation at 3 °C (EN 12618-1):
  - Adhesion to dry concrete: 1.30 N/mm<sup>2</sup>.
  - Adhesion to wet concrete: 0.63 N/mm<sup>2</sup>.
  - $_{\odot}$  Adhesion to a sandblasted metal plate: 3.59 N/mm².
  - Elongation at 3 °C: 117 %.
- Glass transition temperature (EN 12614): 35.2 °C.
- Shelf life: 12 months after production date in the original, unopened and undamaged packaging. PC<sup>®</sup> Leakinject 2K FLEX 6811 LV has to be stored in a dry place between + 10°C and + 30°C. Once the packaging has been opened, the time to use the product reduces fast, so it has to be applied as fast as possible.

## 5. Processing

Mix the PC<sup>®</sup> Leakinject 2K Flex 6811 LV A and the PC<sup>®</sup> Leakinject 2K Flex 6811 LV B in the correct ratio (1/1 volume or 1.2/1.32 weight). Inject this mixture through a pump within the pumpable time or work with a two-component pump (volumetric ratio of 1:1).

## 6. Packaging

 $PC^{\mathbb{R}}$  Leakinject 2K Flex 6811 LV A and  $PC^{\mathbb{R}}$  Leakinject 2K Flex 6811 LV B are delivered in separate bins. The volumetric ratio is 1/1.

- PC<sup>®</sup> Leakinject 2K Flex 6811 LV A: 12 kg.
- PC<sup>®</sup> Leakinject 2K Flex 6811 LV B: 13,2 kg.
- Weight of the mixture: 25,2 kg.

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#### 7. Cleaning

Clean pump and equipment with  $PC^{\otimes}$  Ecoclean every time there is a stop of more than 15 minutes or whenever necessary and at the end of the injection. Flush with an extra 1/4 litre of  $PC^{\otimes}$  Ecloclean.

#### 8. Precautions and security measures

- Avoid contact of PC<sup>®</sup> Leakinject 2K Flex 6811 LV with the skin and eyes.
- Wear safety glasses, gloves and an overall.
- In case of contact with the eyes: wash with lots of water and seek medical attention.
- In case of contact with the skin: wash with lots of water.
- Absorb spilled resin with sand and dispose according to the local regulations.
- The PC<sup>®</sup> Leakinject 2K Flex 6811 LV B component can react with water or humidity in the air and forms CO<sub>2</sub> gas. This can build up pressure in the packaging which has already been opened.
- Mix the rests of **PC**<sup>®</sup> **Leakinject 2K Flex 6811 LV** with sand and remove according the local regulations.
- Consult the MSDS-sheet.

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Concrete U(D1)W	IN 1504-5 injection product /(1)(1/2/3)(5/30) filling of cracks
Adhesion and elongation capacity at 3 °C	Adhesion: On dry concrete slab: 1.30 N/mm <sup>2</sup> On wet concrete slab: 0.63 N/mm <sup>2</sup> On sandblasted metal plate: 3.59 N/mm <sup>2</sup> Elongation: > 10%
Watertightness	$\geq 2 \times 10^5 \text{ Pa}$
Glass transition temperature	- 35.2 °C
Injectability into dry medium	High injectability for crack widths from 0.1 mm
Injectability into non dry medium	High injectability for crack widths from 0.1 mm
Initial viscosity mixture (20 °C)	118 mPas
Expansion ratio and evolution Workable time	NPD 150 min (12°C), 90 min (25 °C)
Durability-compatibility with concrete	Pass
Corrosion behavior	Deemed to have no corrosive effect
Dangerous substances	comply with 5.4