

# IPAPUR IS

## PUR Injection grout for structural bonding of cracks in concrete structures

# A 9

### Product Specifications:

IPAPUR IS is a two component solvent-free poly-urethane resin consisting of a polyol component and a selected type of isocyanate. IPAPUR IS is based on polyether polyols . By means of a special process in our plant the Ipapur Component I is already dried and degassed to avoid foaming during the reaction with the Isocyanate component. After mixing the components an exothermal reaction starts from which a solid end product is obtained. IPAPUR IS is delivered with a processing time (1 l sample at 20°C) of 40-50 minutes. The reaction time of IPAPUR IS can be accelerated by IPA Pu ACCELERATOR.

### Characteristics:

Solvent and filler free

Outstanding resistance to water  
High tensile strength in combination with good flexibility  
Very good adhesion to dry and moist concrete  
Low viscosity  
Physiologically harmless

### Areas of Application:

IPAPUR IS injected into wet and dry concrete cracks for a permanent bonding and sealing by one or two component injection machines.

If heavy waterleaks shall be sealed IPAPUR IS should be used in combination with IPAPUR VM to first stop the water and after that make the durable sealing with IPAPUR IS.

### Technical Data:

<b>Density (at +20°C):</b>	component I: 1.050 kg/ltr.
	component II: 0.1,230 kg/ltr.
	mixture: 1.10 kg/ltr.
<b>Mixing Ratio:</b>	comp. I : comp. II
<b>parts p. weight</b>	1,71 : 1
<b>parts p. vol.</b>	2 : 1
<b>Colour</b>	yellow green dark brown
<b>Viscosity of the mixture</b>	
<b>at 8°C</b>	mPas 500...650
<b>at 15°C</b>	mPa.s 300...350
<b>at 25°C</b>	mPa.s 200...250
<b>Potlife (1 l sample at 20°C )</b>	Minutes 45...60

### MECHANICAL AND PHYSICAL PROPERTIES OF THE END PRODUCT

PROPERTY	ACCORDING TO	DIMENSION	VALUE
Tensile strength	ASTM D 638	N/mm <sup>2</sup>	8.0 - 8.8
Elongation at break	ASTM D 638	%	60 -- 80
Shore D hardness	Din 53505		50 -- 60
Compressive Strength	56,5N/mm <sup>2</sup>		
Adhesive strength to concrete.			2,2...2,4 N/mm <sup>2</sup> (280...300 psi).
Storage:	keep dry, protect against direct insolation		
Shelf Life:	1 year within unopened container		
Supplied In:	tinplate containers holding 1,58kgs or 15,8kgs		

**Processing Notes:**

IPAPUR IS with IPAPUR VM is a complete system, ideally suited for bonding and sealing of cracks and breaks in concrete and brick structures as well as other areas suffering from water leakage problems.

If a leakage of water has to be stopped IPAPUR IS should be applied in combination with IPAPUR VM a so-called waterstop system.

IPAPUR VM will first locate the water and react it away, after which the injection of IPAPUR IS can be carried out.

**Injections:**

Mixing Instructions:

Thoroughly and homogeneously mix components I and II. In the process, take the utmost care to prevent any water from dropping into the mixing container.

We recommend the following procedure for injecting dry and moist cracks:

- Determine orientation of crack or cracks
- Alternatingly place 13 mm dia. drillholes at either side of crack so as to pierce it as centrally as possible; space drillholes approx. 15-20 cm.
- Using an air gun, blow out the drilling fines.
- Fill cracks more than 0.3 mm wide using IPATOP SM, IPA cement filler or epoxy filler.- Tension the 13 mm Revolva valves or IPA threaded packers.

**Safety Recommendations:**

Observe all protective measures prescribed by any competent social insurance association against occupational hazards in the chemical industry. Use gloves and protective goggles. Avoid any contact between the product and your skin. For improved protection, apply cream to your hands. Use a good deal of water to wash away any splashes of material reaching your skin or an eye; afterwards, immediately consult a physician.

- Screw check valve nipple on to the lowest valve and use an IPA high-pressure injection system to inject premixed

IPAPUR IS until resin appears at the open injection valve above it.

- Screw check nipple on to the next threaded tube and continue injecting.

- Once the top valve has been reached, reinject all valves once more; immediately remove any resin protruding.

- Conclude any injection job by taking the check nipples off the Revolva valves, inserting the plastic plugs and, if necessary, neatly filling the drillholes.

**Note:**

By means of IPA injection systems, numerous construction engineering problems can be solved. However, procedures and materials to be used have to be adapted to any individual case. Call upon our Field Service and our Applications department.

**INSTRUCTIONS FOR USE**

To prevent condensation on the liquids, at the start of the operation the temperature of the components should be adjusted to the ambient temperature (20...25°C).

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Any advice we provide in writing or by word of mouth is intended to support your own efforts. It is to be understood as non-binding. Product descriptions imply no representation as to liability for damage, if any. Should there be any question of liability, it will be limited, in respect of any damage, to the value of any goods supplied and used.

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