IPA Bauchemische Produkte GmbH

A Stable Solution

IPANOL IH



Injection and Grouting Resin for Gravity-Actuated Crack Bonding and Making Up High-Strength, Impact-Resistant Resin and ECC Mortars.

Product Specifications:

IPANOL IH is a solvent-free, fillerless, transparent 2-component epoxy resin characterized by particularly low viscosity.

Areas of Application:

IPANOL IH is used for structural-bond- sealing, bonding and injection of concrete, masonry, wood and natural stone structures. IPANOL IH is characterized by excellent adhesion to dry, moist and wet substrates, and will cure even underwater without having its resinous properties impaired.

IPANOL IH can be used to apply priming courses, surface coats, fillers, hard-wearing thin and thick-bed courses, seals and industry-type flooring characterized by high resistance against impacts as well as chemical and mechanical stresses.

Action (Properties):

Upon mixing, the components will cure into a hornlike, thermoset plastic material characterized by high pressure, Flexural,

adhesion strength, and shear resistance values.

Thanks to its special, mature formulation, IPANOL IH will adhere equally well to dry and moist substrates. IPANOL IH is tested for

drinking water applications, highly resistant against chemicals, physiologically harmless as well as nontoxic once cured.

Test Certificates:

Test Report no. 3100a, Munich Technical University; Determination of Characteristics no. 8029a/82, Munich TU; Report on Biological Drinking Water Compatibility, Karlsruhe TU; Test Report on Drinking Water Compatibility, Gelsenkirchen Institute of Hygienics.

Processing Notes:

Use a power mixer to mix master resin (comp. I) and hardener (comp. II) in the (weight or volume) ratio indicated.

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 indivdual case. Call upon our Field Service and our Applications department.

Technical Data:

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Material:	solvent-free, low-viscosity, 2-	
	component epoxy resin	
Appearance:	honey-coloured, transparent	
Viscosity (at +20oC):	approx. 270 mPas	
Density:	component I: 1.16 kg/ltr.	
	component II: 0.92 kg/ltr	
	mixture: 1.08 kg/ltr.	
Mixing Ratio:	comp. I : comp. II	
Parts p. weight	3 : 1	
Parts p. vol.	2.4 : 1	
Processing	not below +5oC	
(Temperature of		
substrate):		
Pot Life:	approx. 40 minutes at +20oC,	
	assuming 1 kg of resin	
Curing (at +20oC):	ready to be walked on after 8	
	hours, final strength after 7	
	days	
Storage:	keep dry, protect against direct	
	insolation	
Shelf Life:	1 year within unopened	
	container	
Supplied In:	containers holding 1.2 kg, 12 kg	
	or 28 kgs	

Compression Strength:	87.4 N/mm²
Bending Strength:	30.8 N/mm²
Adhesive Strength on	8.5 N/mm²
steel:	
Shear Strength, Bonded on	6.5 N/mm² (bonding and
concrete:	storage, dry),
	4.0 N/mm² (bonding and
	storage, moist)

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Injections (Structural-bond- Adhesion):

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 IPA Unimörtel Rapid or IPATOP Betonspachtel (-Tension the 13 mm Injection Packers
- Screw check valve nipple on to the lowest valve and use an IPA high-pressure injection system to inject premixed IPANOL IH 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 nippels off the Injection valves, inserting the plastic plugs and, if necessary, neatly filling the drillholes.

Resin-Based Coatings, Fillers, Mortars:

Any substrate must be solid, clean, and free of dust, oil and/or grease. To suitably prepared substrates, apply a priming coat of

IPANOL IH using a brush or roller (consumption: approx. 300 grams per square meter). Upon at least 6-8 hours' evaporation

(at +20oC), apply the resin-based coating made up using IPANOL IH as a binder to the priming coat that must be still tacky. IPANOL IH being a self-spreading mortar,up to 2.5 times its weight of silicious sand or china clay can be added to it. To make up resin-based fillers and grouts, up to 4 times its weight of suitably selected and grained silicious sand can be added to IPANOL IH. Surfaces subject to water stressing must be protected by appropriate sealing coats.

Epoxy-Improved Cement Grouts (ECC):

IPANOL IH may be used to improve cement-bound screeds and grouts. Please request our IPAL EPI data sheet.

Please Note:

If more important cavities (500 cubic centimeters and more) are to be filled, the material may overheat.

Therefore, fillers ought to be added to IPANOL IH in all such cases. All mortars and grouts containing IPANOL IH have to be protected against rain until fully cured (7 days). Use IPAPOX cleaning agent to clean tools and injection machinery!

Safety Recommendations:

IPANOL IH's component II is corrosive!

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

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