

TECHNICAL DATASHEET

INTECTIN ACRYLIC RESIN

Product description:

Intectin acrylic resin is a hydrophilic and water compatible injection resin made of acryl. After mixing, the two components of the resin supplied ready for application react within 60 – 100 minutes (depending on ambient temperatures) and become a viscoplastic network polymer with excellent adhesion properties also on humid concrete.

Intectin acrylic resin maintains its swelling capacity even after curing. The cured product absorbs water, swells and increases its volume and will thus automatically compensate later changes of the joint / crack cross section: The material thus provides a self-healing effect! Intectin acrylic resin is of low viscosity. It therefore shows excellent flow properties during injection and it reliably and completely forces itself into even the finest cracks and porous structures.

Properties:

Its specific structure makes the product particularly resistant against chemical and biological attack. Intectin acrylic resin is also tested to KTW guidelines and satisfies the requirements for plastic sealants used for drinking water applications.

Technical data:

Delivery standard	2-component ("A" + "B")
Structure	Acrylic resin (vinyl acrylate)
Mixing ratio	1 : 1 to volume
Density (compound)	1,05 ^{±0,05} gr / ml
Swelling capacity in water	approx. 75 Vol. %
Processing time (pot life)	65 – 80 minutes / 20°C
Processing temperature	0°C up to 40°C
Danger sign „A“	Label "Xi" (irritating)
Danger sign „B“	Not applicable
GGVE/GGVS	Not applicable (no restriction)

Important instructions for use:

Intectin acrylic resin is a classic 2K-system. The mixing ratio of the two components is 1:1, this simplifies application even when small quantities from big containers are used. Prior to application both components are put into a clean container and are mixed carefully by stirring with an appropriate stirring device (e.g. drill with propeller), until a homogeneous product free from unmixed material is produced. Manual stirring is insufficient. The product can be applied immediately after mixing – without maturing time. All common pumps and presses generally used for injection can be used for resin application. All parts of the installation equipment that come in contact with the resin must be made of stainless steel; brass and copper are not suitable!

IMPORTANT:

Always only mix a quantity of resin which can be applied within a reasonable time period. Heat released during reaction (this is identical for all reaction resins) automatically accelerates the reaction – useful life is thus enormously shortened for big quantities. High ambient, machine and material temperatures also shorten useful life a mixed compound.

Cleaning:

Intectin acrylic resin is water-soluble and environmentally neutral. Both components of the Intectin acrylic resin are completely soluble in water; simply clean / rinse equipment for resin application and machines (resin residues at the construction site) with water!

Work safety:

Intectin acrylic resin is generally recognized as safe provided that work safety rules during application are complied with. It is nevertheless recommended to wear protective clothing and safety goggles during application and to comply with the usual regulations of industrial hygiene. We strictly recommend compliance with all relevant National Guidelines including those for Health & Safety related to the handling and processing of injection materials. In case of eye contact with basic components or with the injection compound immediately clean your skin during 15 minutes with a lot of water. Immediately consult a doctor afterwards.

Storage and waste disposal:

Storage life of Intectin acrylic resin is at least 12 months, when kept in original sealed containers in a cool and dry place protected against sunlight. Storage does not have any influence on quality and reactivity. The B-component must, however, be protected against frost as it can no longer be used after freezing. The product is not inflammable, but combustible. Please bear this material property in mind for storage. It must not be stored together with foodstuff and must be kept out of reach of children and unauthorised persons. After reaction, Intectin acrylic resin is physiologically harmless and can be disposed of together with normal domestic waste. Product residues become harmless by simple mixing of components. Empty recipients with liquid product residues are cleaned by rinsing with water and can afterwards disposed of together with recycling products (PE). Rinse water and liquid material residues can easily be made harmless by mixing and curing with cement or plaster and can afterwards be disposed of similar to construction waste.

Recommendations with regard to product application given in the present technical data sheet for practical assistance of product users are based on our experience and on our present scientific and practical body of knowledge. These recommendations, however, are given without engagement and do not establish a contractual relationship or subsidiary duties. These recommendations do not relieve users from their liability and from their own responsibility to test whether our product is suited for the intended purpose of application.

RESISTANCE CHART

INTECTIN ACRYLIC RESIN

Test medium	Reaction	Swelling capacity
1. Hydrocarbons		
Super fuel; 98 Octane	+++	Y
Test fuel; 140 – 200	+++	N
Crystal oil 21 (Shell)	+++	N
Diesel	+++	N
Fuel oil type „EL“	+++	N
Paraffin oil (Spindle oil)	+++	N
Benzene	+++	N
Styrol	+++	N
Kerosene (I.P. fuel)	---	N
2. Solvents		
Acetone	+/-	
Methyl isobutyl ketone	+/-	
Isophorone	+/-	
Ethyl ether	+++	Y
Ethyl acetate	+++	Y
Butyrolactone	+/-	Y
Ethyl glycol	+++	Y
Dimethyl formamide	---	Y
Propylene carbonate	+++	Y
Methylene chloride	---	
3. Alcohols		
Ethyl alcohol	+++	N
Methyl alcohol	+++	Y
Butanol	+++	N
Isopropyl alcohol	+++	N
Glycerine; 50 % in water	+++	Y
Ethylene glycol	+/-	N

Test medium	Reaction	Swelling capacity
4. Bases		
Ammonia water (ammonium hydroxide) 25 %	+++	Y
Milk of lime (PH > 12)	+++	Y
Sodium hydroxide, 10 %	+++	Y
Caustic potash solution, 20 %	+++	Y
Sodium silicate 38/40 Be	+++	Y
Triethanolamine; 40% in water	+++	Y
Ethylenediamine (EDA)	+++	Y
5. Acids		
Phosphoric acid (Ortho), 10 %	+++	Y
Hydrochloric acid (5%)	+/-	Y
Sulphuric acid (5%)	+/-	
Nitric acid (5%)	+/-	
Ethanoic acid (10%)	+++	Y
Lactic acid (10%)	+++	Y
Acidity of wine (10%)	+++	Y
Citric acid (10%)	+++	Y
Linseed fatty acid	+++	N
6. Salts (aqueous solutions)		
Kitchen salt (5%)	+++	Y
Magnesium chloride (5%)	+++	Y
Calcium chloride	+++	Y
Carbonyldiamide	+++	Y
Sodium pyrophosphate (5%)	+++	Y
Sodium sulphate (5%)	+++	Y
Sodium thiosulphate (5%)	+++	Y
Carbonyldiamide (5%)	+++	

Test medium	Reaction	Swelling capacity
7. Other bonds		
Formaldehyde solution (Formaldehyde, 30 % in water)	+++	Y
Sugar solution (20 % in water)	+++	Y
Sodium glucon (5 % in water)	+++	Y
Phenylic acid (5 % in water)	+++	Y
8. Household products / chemicals		
„Spüli“ (Tenside mixture) 5 % water	+++	Y
Lees, 10 % („Persil“)	+++	Y
Milk	+++	Y
Beer	+++	Y
Wine	+++	Y
Apple juice	+++	Y
Coca-Cola	+++	Y
Sunflower oil	+++	N
9. Miscellaneous		
Sea water (North Sea)	+++	Y
Liquid manure	+++	Y
Waste water (infeed of wastewater treatment plant)	+++	Y
Legend:		
Chemical resistance	+++ = Resistant	
	+/- = Attacks, but resistant	
	-/+ = Resistant during a short exposure time	
	--- = Not resistant, product matrix destroyed	
Expansion behaviour	Y = Yes (Product swells in this medium)	
	N = No (Product does not swell in this medium)	
Test period	= 6 months (submerged)	