

HydroBloc® PU 500

PUR-Injection resin, swellable

HydroBloc® PU 500 is an unique injection resin with self healing effect! After hardening, The resin increases its volume by more than 150 % when it comes into contact with water after curing (without foaming!), about 150 %, similar to a swelling tape. Because of that reason the resin adjusts changes in joint or crack cross section automatically (even after years!)*.

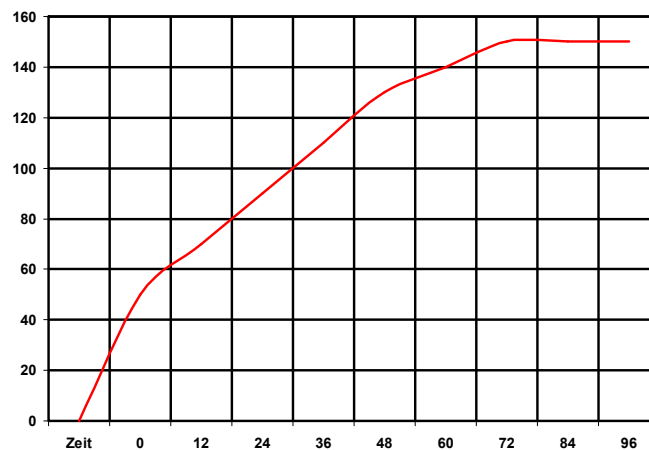
*Test report by Material research and testing laboratory Leipzig, 22.7.1998

**Tested quality
Fail-safe and
neutral to
environment**

HydroBloc® PU 500 is used there, where joints, cracks and honey comb structures in concrete constructions must be sealed durable against water infiltration. It is especially suitable for this kind of work because of it's swelling effect. This makes the technical advantage compared to other injection resins which are not swellable.

HydroBloc® PU 500 is not getting attacked by ingredients of concrete as well as it contains no ingredients which harm concrete or reinforcing steel. Ground and drinking water is not getting contaminated by HydroBloc PU-500. Our product is tested in Germany according to "KTW-directives" (plastic materials in drinking water) of German health authority and achieves this requirements (Expertise by Hygiene-Institut Gelsenkirchen).

**Typical:
The swellability
of HydroBloc® PU 500**

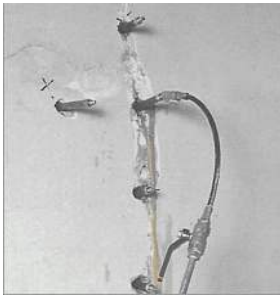


**Increase of volume
of HydroBloc® PU 500
reference block
stored in water**



HydroBloc® PU 500 is a classic 2 Comp.-resin. The Mixing ratio of both components is 1:1 by volume. Because of the convenient mixing ratio and the long pot life of the mixture it is especially user friendly even if small amounts where required.

Put both components in a dry and clean pot for mixing. Stir accurate with stirring gear (e.g. drilling machine) until the components are homogeneous. Stirring by hand is not sufficient. Application can start directly after mixing. The resin can be used with all usual pumps and squeezing machines for injection technique. There are no special requirements to basic materials of machines and equipment .



Regarding to the mixing ratio, HydroBloc®PU 500 can easily be used with all 2 component machines which can be adjusted to a mixing ratio of 1:1.

The processing time of the mixed resin as supplied form is about 70 - 100 minutes at 20°C. These time can be reduced with our accelerators HydroCat-508 / 509 to setting times of ≤ 120 seconds. Even if much water is flowing under pressure, sealings with HydroBloc®PU 500 are possible.

Non-cured HydroBloc®PU 500 is soluble in the most solvents but don't use mixed solvents like diluent for cell lacquer to clean working machines. They contain alcohol and traces of water which could react with the product. Use our safety solvent Hydro-Solv® 520 which is verified to our products. It is friendly to environment, not inflammable a very good solvent for PU-Components.

Properties

Component A	Formulated polyol compound
Appearance	Light, slightly cloudy liquid
Component B	Modified diisocyanate of MDI-Type
Appearance	Clear, brown liquid
Odour	Very weak
Mixing ratio	1 : 1 by volume
Density, mixed	Approx. 1,10 - 1,15 g/ml (at 20°)
Viscosity, mixed	Approx. 250 mPa.s +/- 50 (at 20°)
Processing time	Approx. 65 - 100 Minutes at 20°C
Extensibility	Approx. 100% (hardened)

Safety

If used according to instructions as injection material, HydroBloc®PU 500 is a harmless material. We recommend to wear protective clothing, gloves and glasses while handling. Please pay attention to the usual industrial hygiene and national directives for handling and processing of injection materials.



Vapour pressure of the used Isocyanate in the B-Component is low.

People who show allergic reactions to Isocyanate should handle with care or rather not work with polyurethane materials.

After eye contact rinse with plenty of water for about 15 minutes. Contact a medical specialist immediately.

Storage + Disposal

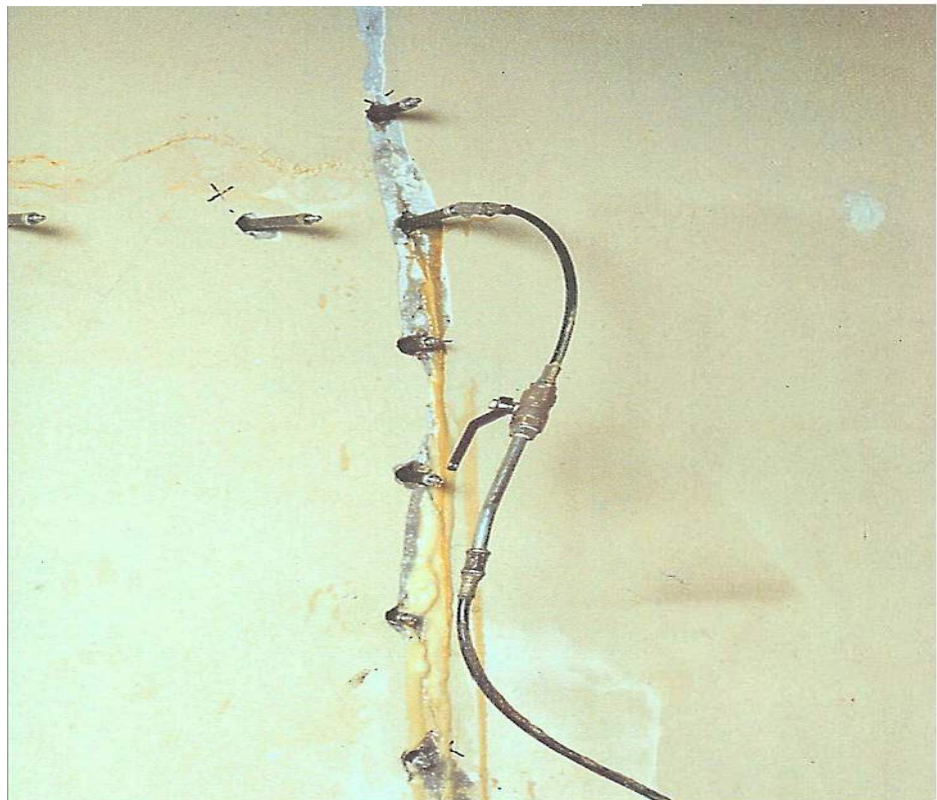
As supplied, HydroBloc®PU 500 reacts with water like all polyurethanes. Since even traces of moisture impair the quality of polyurethane resins, opened containers must always be tightly sealed. Stored in a cool and dry place HydroBloc®PU 500 is stable for at least 24 month. The quality and reactivity are not affected by longer storage.

At low temperatures the viscosity of the components increases. In frost, the B-component can partially solidify to a wax-like mass. By heating (e.g. in a water bath, not over 50° C!) and mixing thoroughly, this change is reversed without loss of quality.

The product is not flammable but combustible. Attention must be paid to this during storage. The product should only be stored in the tightly closed original containers and in such a way that it is not accessible to children and unauthorised third parties.

Reacted HydroBloc®PU 500 is completely harmless and can be disposed of like building rubble or household waste. Liquid product residues or empty containers with product residues are hazardous waste and must be disposed of in accordance with local regulations for such waste.

Typical crack injection - but with double safety by the self healing effect of the swellable HydroBloc®PU 500 !



These technical information describe the present-day state of knowledge these product. They should only inform about the possibilities of application and could not release the applicator of his commitment to check the possibility to use the product for the required application. Information for processing can be found in processing instructions of our product. Information about safe handling can be found in our current safety data sheet.

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passion to invent 