

HydroBloc®Integral

Injection resins with one component only

HydroBloc® Integral is the brand name for new injection resins for sealing structures - with surprising, hitherto unknown properties and many technical and economic advantages for the user.

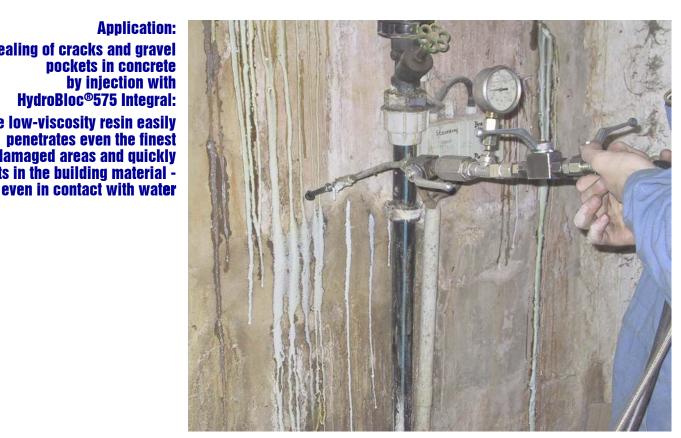
ntegral = - 1 component only - no mixing - no pot life - no errors - no problems The Integral®-Products now consist of one component only, so they no longer need to be mixed for processing. Due to the integrated hardener function, they react on contact with the building material and bind faster than most known multi-component resins, even at low temperatures (!).

In the injection machine, however, the resins remain liquid . Restrictions due to the "pot life" and the time-consuming rinsing of the machines during breaks in work are not needed.

Mixing errors are a thing of the past when processing *Integral*® resins, as well as problems with glued machines and clogged hoses due to non-observance of processing times, too fast reaction at high temperatures, etc. Expensive working time, rinsing agents and solvents are saved; processing becomes much easier and above all safer.

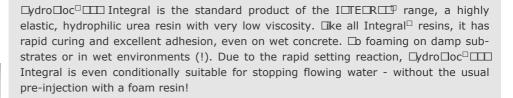
The Integral® resins are used for the sealing of cracks, gravel pockets, construction joints and injection hoses, i.e. for all classic injection applications for which multi-component products were previously common and necessary.

Application: Sealing of cracks and gravel pockets in concrete by injection with HvdroBloc®575 Integral: The low-viscosity resin easily penetrates even the finest damaged areas and guickly sets in the building material -



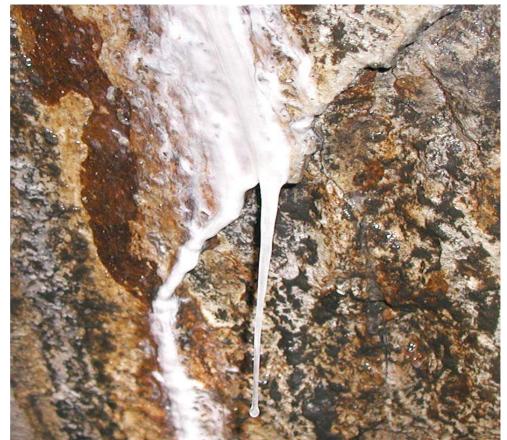


HydroBloc®575 *Integral*





IMPORTANT: □ardened □ydro□oc□□□□Integral is swellable in water. The resin automatically compensates volume changes in cracks and joints - the □□elf-healing effect□ of our swellable □R□□□ resins.



Application: Sealing a crack in a tunnel with high water flow with Hydro-Bloc®575 Integral.

Very nice to see: The set resin solidified into a drop as soon as it came out of the crack.

HydroBloc®-Integral without foam bubbles

HydroBloc®510 *Integral*

 \Box ydro \Box oc \Box \Box Integral is medium reactive watertsop foam. \Box ke all Integral \Box resins it hardens only after injection into the building structure. The adhesion to concrete, masonry and other typical building substrates is excellent.





HydroBloc®600 *Integral*

□ydro□oc□□□□Integral is highly elastic. The polymer resin is medium viscous and hydrophobic. □ke all Integral□ resins it hardens only after injection into the building structure. The adhesion to concrete, masonry and other typical building substrates is excellent.

In dry and matt damp substrates \Box ydro \Box oc \Box \Box Integral cures homogeneously. The hydroactive resin pushes itself even further into structures, cracks and voids due to expansion while curing process

HydroBloc®620 Integral

 \Box ydroactive, tough and low foaming polyurethane resin, low viscosity, solvent-free, pre-formulated ready for use. Due to its typical \Box bydroactive effect \Box the resin expands during curing to a creamy, fine-celled foam and creeps into the finest gaps and pores (self-injection effect). \Box ctive time to setting about \Box minutes. \Box or sealing very damp cracks and construction joints, for gravel pockets and other porous structures. Excellent adhesion to all typical building substrates \Box even the wet ones.

 \Box ydro \Box oc \Box \Box Integral is no waterstop foam.

 $\label{localize} \textbf{IMPORTANT:} \ \Box y dro \Box oc^\Box \Box \Box \Box Integral - like all foam resins - should not be used for injecting injection hoses.$

□ y adding □ □ percent of the activator □ ydro □ at□ □ the resins react faster with water.

Technical information

The Integral resins cure by a hardener function integrated into the base resin; the reaction is already triggered by traces of water. The water (always) present in the environment is sufficient to start the reaction, both as residual moisture in mineral building materials and as air humidity. Reactivity with water must be taken into account during processing; open containers must always be tightly closed immediately. The machines used must be completely dry. Dr this reason, never use equipment with which watery or water-containing products were previously processed!

In order to prevent undesired skin or foam formation when the resins remain open for a longer period of time - e.g. in the feed tanks of injection machines - we recommend coating the surface of the liquid a few mm with our care product \Box ydromoll \Box are and conservation agent. This product reliably prevents contact of the resin surface with the air. \Box n the other hand, \Box ydroMoll \Box is compatible with the resins and can be mixed in small quantities with the respective product during further processing without damage.

□ydroMoll□□□□□□□ □ are and conservation agent is also an ideal preservative. It protects machines during longer work interruptions - if necessary even for months or years - and effectively prevents valves and hose lines from sticking. □ this purpose, the machine and hoses are simply filled completely with fresh HydroMoll®522 Care and conservation agent after rinsing with HydroSolv®520 □ eaner.



Technical Rules Conformity

These Integral injection resins meet the requirements of the current European standard series EU-IIII Protection and Maintenance of concrete structures.

Part $\square\square$ for filling cracks, cavities and voids \square paragraph $\square\square$ Polyurethane based fillers.



In accordance with EN-1504* they are suitable for the following applications:-

- □ydro□oc□□□□Integral for the swellable and expandable filling of cracks, cavities and voids; □ategory □
- □ydro□oc□□□□Integral for waterstop injections
- □ydro□oc□□□□Integral for the elastic filling of cracks, cavities and voids.
- □ydro□oc□□□□Integral for the filling of cracks, cavities and voids.

The standard product of the series, \square ydro \square oc \square \square Integral is tested according to DI \square -E \square \square Dby the \square \square Polymer Institute, \square Crsheim am Main (test report P- \square)

Properties

HydroBloc [□] I ntegral	Integral 575	Integral 510	Integral 600	Integral 620
Raw material base	P⊡-Prepolymer	P⊡-Prepolymer	P⊡-Prepolymer	P⊡Prepolymer
□omponents				
□blour	⊡ellowish	□oney-coloured	□oney-coloured	brown
□dour	weak	very weak	weak	weak
□scosity □□□ mPa.s		ш- ш		
Density, gr⊡nl	<u> </u>	900-900	コロ	ц П
Max. □wellability in water		does not apply	does not apply	does not apply
Max. ⊡bam volume	non foaming	са. ШШ	very weak no bub- bles	са. ШШ 🗆

☐<u>— fter</u> ☐uring

 \Box Depending on contact with water, <u>before</u> curing



Safety Environmental protection Storage

The <code>HydroBloc® Integral</code> products are urea resins and contain polymeric Isocyanate. □hen used as injection resin according to the instructions, the products do not pose any particular ha⊡ards. The protective regulations of the professional associations for the processing of injection resins and the usual industrial hygiene rules for handling reaction resins must be observed. □e recommend to always wear protective goggles and gloves during processing and to protect unprotected skin areas with a suitable skin protection cream. Detailed information on safe handling of the products can be found in the current safety data sheets available for each of the products. They should be made available to all those who handle the products.

HydroBloc®575 and HydroBloc®620 have been positively tested in Germany according to the KTW guidelines. The products can also be used in contact with drinking water.



The resins can be stored for at least \square months in original sealed containers. The \square ydro \square oc \square Integral resins are not flammable, but as organic liquids they are combustible. This fact must be taken into account during storage. These products must not be accessible to children and unauthorised third parties. Temperatures above \square should be avoided. \square low temperatures, the viscosity of the products increases and processing becomes more difficult.

Product residues - even in containers - are most easily cured by leaving them open or mixing them with water, damp sand or similar and then simply disposed of as normal building rubble.

This technical information describes the current state of our knowledge about this product. It is intended only to inform about the possibilities of its application and cannot release the user from his obligation to carefully examine the product for the intended applications. Information on the processing of the product can be found in the processing instructions. Information on safe handling of $\Box y dro \Box oc^\Box$ Integral can be found in the current safety data sheet.

□ II-□ydro□ oc□ Integral □ III □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ I rights reserved

ARCAN Waterproof

ARCAN GmbH Spezialbaustoffe

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Passion to invent