

EUCOINJECT PU HARD

1 COMPONENT POLYURETHANE INJECTION RESIN, MEDIUM HARD.

FIELD OF APPLICATION

EUCOINJECT PU HARD is a 1 component, polyurethane injection resin for sealing water leaks. In contact with water, the resin will react quickly. The foam that is created has a large expansion volume. It will foam compactly in the cracks of joints and will seal them.

- Sealing of water leaks.
- Basement, foundations, silt walls, sheet piling, secant pile walls, lift pits, ...
- Filling and sealing of large cracks, voids, cavities, gravel layers, ...
- Injection in mines, pipe passages, drill & blast, TBM applications.
- Combigrouting
- Injection of cracks and gravel nests in concrete.
- Sealing and stabilizing water leaks in sewers and inspection holes.
- Soil stabilization and injection of anchors in porous substrates.
- Injection of TAM/strainer pipes.
- Etc...

BENEFITS & FEATURES

- The cured polyurethane resin is harmless to the environment.
- Resistant to micro-organisms.
- 1 component system.
- Different reaction times possible (with catalyst: EUCOINJECT PU HARD CAT)
- The cured polyurethane resin is medium hard.
- High compressive strength
- Good chemical resistance
- Hydrophobic - water reactive
- Phthalate free
- With closed cells
- Low viscous

APPLICATION

Application conditions

Application temperature 5 - 40°C

Tools & complementary products

- Power drill and drills of suitable diameter and length.
- Packers of suitable diameter and length.
- Injection pump.
- EUCOINJECT PU HARD CAT
- EUCOPROOF CEM PLUG
- EUCOPROOF MORTAR THIX
- EUCOSOLV PUMP CLEAN

Preparations

Injection of seams and joints:
Check how the seams and joints are positioned to avoid drilling blind holes. Blind holes are drilled holes that have not been drilled through the seam or joint.

Leaking cracks:

Drill injection holes alternately left and right, or above and below the crack and at a 45° angle towards the crack. This is to ensure that the drill holes go through the crack.

The drill holes must cross the crack, seam, joint halfway through the thickness of the concrete wall or floor. Blow the dust out of the injection hole. Place a packer of the correct diameter in the drill holes. If necessary, the packers can be fixed with EUCOPROOF CEM PLUG quick cement.

For special applications it is advisable to consult your EUCOCHEM BV representative.

Preparation of the product and the equipment

Shake the EUCOINJECT PU HARD CAT before use. Add the desired amount of catalyst (0%-10%) to the EUCOINJECT PU HARD injection resin. See the table below to determine how much catalyst to add in function of the desired reaction times and the expansive volume.

With EUCOINJECT PU HARD CAT	0%			5%			10%		
	Start	End		Start	End		Start	End	
	0:20	2:10	54V	0:10	0:45	64V	0:07	0:25	75V

Only make an amount of resin with accelerator that can be processed in one working day. Mix the accelerator well with the injection resin and then protect the mixture from moisture and rain to prevent a premature reaction.

The injection can be performed with a hand pump, pneumatic or electric pump depending on the application. Always use a separate pump for injecting water and resin. Check that the pumps are working properly. Before starting the injection, the resin pump must be flushed with EUCOSOLV PUMP CLEAN; there should be no water in the resin pump to prevent clogging of the pump.

Application of the product

A pre-injection with water in the crack or seam is possible. This ensures that the injection resin will respond better. Always use a separate water pump for injecting the water. This is to prevent clogging of the resin pump. Pour the prepared mixture (resin with catalyst) into the reservoir of the resin pump. Connect the pump to the first packer. Start the injection. When injecting vertical bilge seams or cracks, start at the bottom at the lowest packer. Do not use too much pressure when injecting. The correct pressure is the pressure required for the resin to flow into the crack or bilge seam. Stop the injection from the moment unreacted resin emerges from the crack or the seam. Then inject the next packer. Etc... If necessary, the packers can be re-injected with resin. Post-injection with water is possible after injecting the last packer in order to make the still present resin react. Do this with the water pump, never with the resin pump. This is to prevent clogging of the resin pump.

Finishing

After the injection works, remove the packers and fill the borehole with EUCOPROOF CEM PLUG quick cement, with EUCOPROOF MORTAR THIX or another suitable material.

Cleaning of the tools

After injection works, rinse and clean the resin pump with EUCOSOLV PUMP CLEAN. If the pump will not be used in the coming days, it can be filled with oil until the next injection. Never use water to clean or fill the pump during storage.

MAINTENANCE AFTER APPLICATION

Does not apply.

TECHNICAL DATA

Consumption

Consumption is different in every situation and must be estimated on site. It will be influenced by the amount of water, thickness of the concrete wall or floor, presence of voids in and around the concrete, size of the voids and gaps to be filled, etc...

Technical data

EUCOINJECT PU HARD

Consistency and colour: liquid, dark brown

Odour: Typical

Specific density (at 23°C): approx. 1,14 g/cm³

Viscosity (at 23°C): approx. 230 mPas

EUCOINJECT PU HARD CAT

Consistency and colour: liquid, light yellow

Odour: Typical, amine

Density (at 23°C): approx. 0,91 g/cm³

Viscosity (at 23°C): approx. 15(+/- 15) mPas

Application temperature: 5 - 40°C

Reaction times: See "Preparation of the product and the equipment", as described above.

Chemical resistances

The cured polyurethane resin has good chemical resistance, is harmless to the environment and resistant to micro-organisms.

Additional documentation & referrals

Always consult all technical data sheets and material safety data sheets of the products to be used. Always work with clean tools in good condition.

APPEARANCE - COMPOSITION - PACKAGING

EUCOINJECT PU HARD:

10 kg packaging

22 kg packaging

EUCOINJECT PU HARD CAT:

4.5 kg packaging

EUCOINJECT PU HARD & CAT:

The products are sensitive to frost, storage takes place in a dry room between +15°C +25°C, Free from frost, heat and direct sunlight.

Shelf life resin: 12 months after production date, in the original packaging.

Shelf life accelerator: 12 months after production date, in the original packaging.

Opened packages must be processed as quickly as possible.

ADDITIONAL COMMENTS

The area to be injected must always contain water prior to injection. This is because EUCOINJECT PU HARD is a water-reactive resin. For special applications it is advisable to consult your EUCOCHEM BV representative.

SAFETY PRECAUTIONS

Always use personal protection in accordance with the local guidelines. Consult the appropriate safety sheets before use. All most recent safety data sheets are always available at [op www.eucochem.com](http://op.www.eucochem.com). When in doubt, contact our technical service.

All information in this technical data sheet is provided in good faith and without any guarantees. The choice of a product for any application by the buyer or applicator, the processing of the products, the preparations, the finishing, the use of the right equipment to apply the products and all this in the broadest sense, are entirely beyond our control and are therefore entirely the responsibility of the buyer or applicator. Therefore, EUCOCHEM bv cannot be held responsible on the basis of what is mentioned above. Should EUCOCHEM bv nevertheless be held responsible for damage incurred, the claim will always be limited to the value of the necessary EUCOCHEM bv products to be delivered in order to carry out a minimal repair. EUCOCHEM bv strives to deliver products of consistent, good quality. All values on the technical data sheet are average values and are the result of tests performed under laboratory conditions. Values that are measured in jobsite conditions and the like may deviate from the stated values. This is because the environmental conditions, the application and the manner of processing our products are also outside our control. Please note that you should not add any products other than those indicated in our technical documentation. Only use EUCOCHEM bv products for a system under construction. If you combine products from different suppliers or brands, the warranty expires irrevocably. When applying the EUCOCHEM bv products it is necessary to draw up a construction site log and to fill it in on a regular basis. EUCOCHEM bv can consult the construction site log at any time and / or request a copy to check whether the products and systems have been correctly installed or installed in accordance with the regulations set by EUCOCHEM bv. We also refer to our general terms and conditions in case of dispute. This version of the technical data sheet replaces all previous versions. Version 1.0 Date: 14 October 2021 11:07 am