

Polyurethane Foams

HYDRO

Specific one-component polyurethane adhesive for waterproof sealing of hydraulic elements.



- Quick and easy application
- Quick drying and hardening compared to traditional application with mortar or cement-based adhesive
- Excellent adhesion capacity on all types of substrates, even wet
- Good chemical resistance to bacteria normally present in wet environments
- Usable at temperatures beyond the usual range for cement-based mortars (down to -5 °C)
- High waterproofing capacity (up to 0.5 bar)



APPLICATION AREAS

- Installation of shower trays
- Waterproof sealing, also under pressure, of hydraulic elements such as wells, supports, rings, basins, reservoirs, pipes, channels and raceways, made both of cement and polymers
- Insulation of pipes
- Backfill and fillings of gaps between through-hoses and walls

FEATURES

Hydro is a light blue, waterproof and tough one-component polyurethane adhesive. The formulation has been specifically developed to ensure controlled post-expansion: the increase in volume (visible only when the product is not immediately compressed after extrusion) is reduced to increase density and, consequently, the adhesive capacity and tear resistance. It adheres firmly to concrete, polymeric materials and plastics, except from polyethylene, Teflon and silicone. It features good resistance to water, detergents, micro-organisms and chemical agents. The high consistency and adhesiveness of the fresh product, the dimensional stability and mechanical properties of the hardened material make Hydro the ideal product for bonding applications, especially in confined spaces, where the weight of the assembled elements prevents expansion, contributing to the formation of a compact and continuous polyurethane adhesive layer.

WARNINGS

Do not use the product for applications exposed to direct sunlight. Fully water-saturated substrates and structures prevent adhesion of the foam. In case of doubt, contact our Technical Department.

The Hydro spray can is a pressure vessel. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Do not spray on a flame or an incandescent body. Keep away from all sources of combustion, flames and sparks. Do not smoke. Don't breathe aerosols. Keep out of reach of children. This product contains extremely flammable components, so use only in well-ventilated areas. Especially when several spray cans are used at the same location, there is a danger of formation of explosive air/propellant gas mixtures. Contains diphenylmethane-4,4'-diisocyanate (EEC No 615- 005-00-9). Harmful by inhalation. Irritating to the eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of contact with skin, wash immediately with plenty of soap and water. Wear suitable protective clothing and gloves. In case of insufficient ventilation, use suitable respiratory equipment. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

INSTRUCTIONS FOR USE

1. The substrates to be bonded must be sufficiently resistant, solid, clean, free of oils, grease, dust and dirt in general that could affect adhesion: if necessary, remove the brittle elements and perform general cleaning. Moisten before application, if necessary, to ensure that the fresh product is provided with the moisture required for proper polymerization.
2. Shake the spray can for at least 15 seconds before use and repeat this step after work intervals.
3. Place the first base element. Turn the spray can upside down so that the valve is pointing downwards, point the dispenser in the desired direction and press it, making a bead of about 3 cm in diameter along the entire upper edge with interlocking shape. Place the next support within a few minutes and repeat the operation for all the elements, supports and/or cover to be installed, until the work is completed. The crushing of the bead, obtained thanks to the weight of the overlapping/contiguous elements, will make it possible to create a sealing system capable of ensuring waterproofing capability, even under pressure, up to values of 0.5 bar.
4. When laying shower trays, moisten the substrates and extrude the adhesive in varying quantities depending on the profile of the tray underside. This ensures, in addition to bonding, the filling of cavities and reduces the acoustic noise of water. Moisten Hydro and install the shower tray, taking care to immediately place a weight on the tray to be maintained for the first few hours, or in any case until the adhesive has completely hardened.

In the case of connections and fittings of pipes in wells/tanks, after positioning the pipe/raceway in the cavity of the well/tank, make a bead of about 3 cm in diameter around the connection itself, filling the gap between the two elements to be assembled for about 50% of the available space. The subsequent post-expansion of the adhesive will completely fill the gaps but, given its high thickness, the seal will be able to guarantee good waterproofing, but not an effective pressure tightness. After surface filming, the excess product, if any, can be compressed with fingers, suitably protected by gloves, to form a more compact bead. If the contents of a spray can is not totally used, return it to the upright position and press the dispenser for a few moments. The leaking gas will clean the valve; to reuse the spray can it will be necessary to replace the dispenser.

WAITING TIMES

Complete hardening of the adhesive is achieved about one hour after application. The final curing can take place after about 24 hours after which the glued elements can be used. Fresh foam can be removed with polyurethane foam solvent or alternatively with acetone or trichloroethylene. The hardened foam can only be removed mechanically.

TECHNICAL SPECIFICATIONS

Colour	light blue
External temperature during application	from -5 °C to +40 °C
Operating temperature	from -40 °C to +120 °C
Surface film formation at 23 °C and 50% R.H. (MIT 87*)	7-10 minutes
Shearing of a bead of 20 mm diameter at 23 °C and 50% R.H. (MIT R/8*)	30-40 minutes

Density after contrasted expansion (MIT 50*)	13-18 kg/m ³
Dimensional variation at 23 °C and 50% R.H. (MIT 52*)	< 3%
Fire resistance (DIN 4102)	B2
Linear yield (bead Ø 3 cm) (MIT 119*)	40
Waterproofing / pressure seal (EN 1610)	0.5 bar (W method)
UV resistance	scarce, tends to yellow

* Torggler's Internal Methods are available on request.

Application	Manual application
Packaging	can
Packaging size	12x750 ml
Pallet	42 cardboards
Color	Light blue

CONSUMPTION

The adhesive yield is highly dependent on the application conditions (cylinder, substrate and ambient temperatures). At low temperatures the material output pressure from the valve is reduced; in order to obtain a good yield, it is recommended to store the spray can at a temperature of about 20°C. The consumption of Hydro depends on the type of elements to be bonded, the application method and the pressure exerted on the dispenser. Up to 50 metres of bead can be obtained with a single can.

STORAGE

Store in a cool place in an upright position. Storage in a horizontal position quickly leads to incrustations under the valve which irreparably compromise the extrusion of the material. PU Foam Hydro is stable for at least 18 months when stored upright, in a cool place (below 25 °C), in a dry place and in the original unopened packaging. Do not use after the expiry date indicated on the spray can.

CERTIFICATIONS

B2, in compliance with DIN 4102.

Pressure tightness 0.5 bar, in compliance with EN 1610.

The information contained in this document is reported on the basis of our experience and knowledge; therefore, any recommendations and suggestions made are without any guarantee and must be verified before using the product by those who intend to use it, who assume all responsibility that may result from its use since the conditions of use are not under our direct control. In case of doubt, it is always advisable to make preliminary tests and/or ask for the intervention of our technicians. Torggler reserves the right to modify, replace and/or delete the items, as well as to change the product data in this document without prior notice; in this case the indications given here may no longer be valid. Always refer to the latest version of the data sheet, available at www.torggler.com. Version 09.02.2021.