

HA Afterswell LXP/HXP

Phthalate free, 2-component, flexible, hydrophilic, polyurethane injection system for injections in dry substrates where a low or high post-expansion is required when in contact with water.



• field of application

- Crack injections under dry conditions, when changes in the water table can cause leaks at later times.
- For preventative waterproofing injections of joints through the Infiltra-Stop system.

• advantages

- ADR free transport.
- Phthalate free resins, REACH compliant.
- Solvent free.
- Non-flammable.
- Good flexibility.
- High bond strength.
- Swells after curing when in contact with water.
- User friendly: pumped as a 1-component system after mixing.
- Fixed reaction times, accelerator available for faster setting times (contact your De Neef representative for more details).
- Cured foam has a very good all-round chemical resistance to most organic solvents, mild acids, alkalis and micro-organisms^(*).

• description

HA Afterswell LXP/HXP is a phthalate free, 2-component injection grout which is pumped as a 1-component system after mixing. After mixing, the grout will cure into a closed cell flexible foam which expands up to 30% (LXP) or 200% (HXP) when in contact with water.

HA Afterswell LXP / HXP are supplied in a 2-component set:

- A-component : polyol blend.
- B-component : isocyanate hardener.
- Mixing ratio A/B is 2/1.

• application

Before commencing the injection, consult the Technical Data Sheets and MSDS in order to be familiar with the materials at hand.

1. Preparation

- To improve adhesion of the resin to the surface, the surface needs to be sound, clean and free from dust, debris, grease, oils and laitance.
- Low temperature conditions will significantly increase the viscosity of the products. To minimize this effect, store the product at room temperature for a minimum of 24 hours before use. If site temperatures are extremely low, the product drums may be placed in heated baths before and dur-

ing use to maintain pro-duct temperature, lower viscosities and increase penetration.

- Mix the A-component thoroughly before adding the B-component.

2. Injection

HA Afterswell LXP/HXP is premixed with a low turning mechanical mixer turning at low speed (300 - 400 rpm) to avoid air being mixed into the mixture. The product can then be pumped with a 1-component hand pump or airless diaphragm pump.

HA Afterswell LXP/HXP can also be pumped with a 2:1 ratio pump.

- Drill holes of the correct diameter for the selected packer. Drill at an angle of 45°.

Preferably the holes should be drilled staggered around the crack to insure good coverage of the crack in case it is not perpendicular to the concrete surface. The depth of the bore should be approximately half of the thickness of the concrete. As a rule of thumb the distance of the drill point from the crack is 1/2 the wall thickness.

Distance between holes can vary by 15 to 90 cm, depending on the actual situation.

- Insert the correctly sized packer into the hole up to 2/3 of its length. Tighten with a wrench or spanner by turning clockwise until sufficient tension has been reached to keep the packer in place during injection.
- Start the injection at the first packer. Start injecting at the lowest pressure setting of the pump. Slowly increase the pressure until the resin begins to flow. Pressures may vary from 14 bars to 200 bars depending on the size of the crack, the thickness of the concrete and the general condition of the concrete. A little leakage of resin through the concrete or crack is useful in showing the extent of resin travel. Large leaks should be plugged with rags, wait for the resin to set, then inject again.
- Stop pumping when the pure resin reaches the next packer.
- Move to the next packer and repeat the procedure.
- After injecting through a few of the packers, go back to the first one and re-inject with resin.
- Let the resin cure thoroughly before removing packers. The resulting holes can be filled with hydraulic cement.
- When the injection is finished, clean all tools and equipment which have been in contact with the resin with Washing Agent Eco. This should be done immediately. Do not use solvents or other cleaning products since they give less positive results and can create hazardous situations.

Products should be disposed off according to local legislation. Refer to Material Safety Data Sheet for general recommendations.

In case of spills and accidents, refer to the Material Safety Data Sheet of the products or when in doubt contact the De Neef Division responsible for your territory.

Always wear appropriate protective gear for the job at hand according to local guidelines and regulations. We recommend that gloves and protective goggles should be worn when handling chemical products. See MSDS for further recommendations.

For injection with the Infiltra Stop system, refer to the relevant TDS.

• technical data/properties

Property	Value LXP	Value HXP	Norm
A-component			
Solids	100%	100%	EN ISO 3251
Viscosity @ 25°C	600 - 900 mPas	700 - 900 mPas	EN ISO 3219
Density	Approx 1,000 kg/dm ³	Approx 1,060 kg/dm ³	EN ISO 2811
Flash point	> 100°C	> 100°C	COC
B-component			
Solids	100%	100%	EN ISO 3251
Viscosity @ 25°C	100 - 200 mPas	5 - 15 mPas	EN ISO 3219
Density	Approx 1,200 kg/dm ³	Approx 1,100 kg/dm ³	EN ISO 2811
Flash point	> 100°C	> 100%	COC

Mixture 2/1			
Viscosity @ 25°C	300 - 600 mPas	150 - 250 mPas	EN ISO 3219
Cured compound			
Elongation	25%	100%	Test DNC
Post-expansion in contact with water	Up to 30%	Up to 200%	Test DNC
Density	Approx 1,000 kg / dm ³	Approx 1,000 kg / dm ³	EN ISO 1183
Pot life mixture			
At 20°C	30 minutes	30 minutes	Test DNC
Tack free @ 25°C	60 minutes	60 minutes	Test DNC

All data in the table relate to a non-catalysed mixture.

- **appearance**
 - A-component : transparent liquid.
 - B-component : dark brown liquid.

- **consumption**
 - Has to be estimated by the engineer or operator and is depending on width and depth of the cracks and voids, which need to be injected.

- **packaging**
 - 75 kg kit**
 - A-component : 25 kg metal drum (2 drums).
 - B-component : 25 kg metal drum (1 drum).
 - 1 pallet HA Afterswell LXP/HXP**
 - 16 x 25 kg drum A-component.
 - 8 x 25 kg drum B-component.

- **storage**
 - HA Afterswell LXP/HXP is moisture sensitive.
 - HA Afterswell LXP/HXP should be stored in a dry and frost free area, free from ground.
 - Storage temperature must be between 5°C and 30°C.
 - Once the packaging has been opened, the useful life of the material is greatly reduced and should be used as soon as possible.
 - Shelf life : 2 years.

- **accessories**
 - To be purchased separately**
 - IP 1C-Manual hand pump.
 - IP 1C-Compact electrical airless diaphragm pump.
 - IP 1C-Pro electrical airless diaphragm pump.
 - Packers and connectors.
 - (See relevant TDS).

- **health & safety**
 - HA Afterswell LXP/HXP A-component is not classified.
 - HA Afterswell LXP/HXP B-component is classified as harmful.
 - All persons in contact with the materials should wear the appropriate protective clothing and gloves. Spills should be washed immediately with abundant quantities of clean water.
 - For full information, consult the relevant Material Safety Data Sheet.
 - (*) For chemical resistances, please contact your De Neef Representative.

*All data mentioned on this technical data sheet are product descriptions. They are the result of general experience and experiments and don't take any specific application into account. No further demands may be derived from these data. The manufacturer has the privilege to implement technical changes, which result from new research concerning the material composition and form. To verify that you are holding the latest version of this technical Data Sheet, please visit www.deneef.eu.
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