BUILDING TRUST

PRODUCT DATA SHEET

SikaFix® HH Hydrophilic

LOW VISCOSITY, EXPANDING, POLYURETHANE CHEMICAL GROUT

PRODUCT DESCRIPTION

SikaFix® HH Hydrophilic is a nonflammable hydrophilic polyurethane resin designed to form a flexible gasket or plug joints and cracks in concrete from water infiltration. In its uncured form, SikaFix® HH Hydrophilic is a pale yellow liquid. When it comes in contact with water, the grout expands quickly and cures to a tough, flexible, adhesive, closed cell foam that is essentially unaffected by mildly corrosive environments.

USES

- Sealing leaks through concrete cracks and joints.
- Saturating backer rod to seal joints by the gasket method.

CHARACTERISTICS / ADVANTAGES

- Contains no volatile solvents.
- Non-flammable.
- Free Foam expands to 6 times its liquid volume.
- High elongation creates tight seal in moving cracks.
- Non-corrosive

PRODUCT INFORMATION

Chemical Base	100% solids polyurethane chemical grout
Packaging	5 gallon pail.
Color	Pale yellow
Shelf Life	1 year in original, unopened container.
Storage Conditions	Store in a dry area between 40–90 °F (4–32 °C) using original re-sealable containers. Low temperatures will affect viscosity. To minimize this effect, store the product at room temperature for a minimum period of 24 hours prior to use. Material must be preconditioned to between 60–90 °F (16–32 °C) before use. If site temperatures are extremely low, heat bands or heated water baths may be used on the pails, before and during use to maintain the products temperature. Immerse only the lower 2/3 of the pails. Avoid splashing water into open containers. Do not use if ambient temperature is below 40 °F (4 °C).

Density	**Uncured (74 °F (23 °C))**	**Cured (ASTM D-1622)**
	1.16	4 lbs/ft^3
Flash Point	> 200 °F	
Viscosity	650 cps	(74 °F (23 °C) (ASTM D-1638))

TECHNICAL INFORMATION

Tensile Strength	*Cured* 170 psi	(ASTM D-638)
Elongation at Break	*Cured* 400 %	(ASTM D-638)
Shrinkage	< 1%	
Chemical Resistance	Unaffected by mildly corrosive environments.	
Reaction Time	**Reaction Initiation Time 1:1 with water:** 30 sed at 77F (25C)	

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

When the crack is contaminated at the outside, it will be necessary to clean the crack surface so that the crack can be exactly located. If the crack is wide or high water flows are encountered, it will be necessary to seal the surface of the crack with a surface sealing material (SikaSet® Plug, Sikadur® 31 Hi Mod Gel, or open cell polyurethane foam saturated with SikaFix® HH Hydrophilic). The surface sealing can be done before or after drilling the injection holes, depending on the particular situation.

MIXING

Prior to installation the material should be agitated vigorously shaking the 5 gallon pail or by mixing with a jiffy mixer, bung mixer or by hand. During injection the grout will follow the path of least resistance. When the material has stopped migrating, it will continue to expand against the confines of the crack/joint and compress within itself, forming a very dense, closed cell material and stopping the leak.

APPLICATION METHOD / TOOLS

Begin by drilling 5/8” diameter holes along the side of the crack at a 45 degree angle. Drill the hole to intersect the crack midway through the substrate. Install injection packers in the holes and tighten. Spacing of the injection ports depends on crack width, but normal varies from 6” to 36”. It is always necessary to flush the drilled holes with water to remove debris and drill dust from the holes and crack. This will also
ensure that the crack is wet enough to react with the grout when it is introduced to the crack. Begin the injection of the grout as the lowest packer installed on a vertical crack, or at the first packer flushed for a horizontal crack. During the injection, you will notice that the SikaFix® HH Hydrophilic displaces water from the crack. Continue injecting until the grout appears at the adjacent packer hole. Stop pumping and reinstall the packer in the adjacent hole. Tighten the packer and move the pump hose to the second packer and begin injection. Continue the process until 3–4 packers have been grouted. Disconnect and go back to the first packer and inject all the ports for the second time if necessary. Some ports may take additional grout, which will fill up and further densify the material in the crack. Continue process until the length of the prepared crack is injected.
Note: Injection pressure will vary from 200 psi to 2500 psi depending on the width of the crack, thickness of concrete and condition of concrete.

Tooling & Finishing
When finished with the injection process, re-inject each installed packer with a small amount of water. This will react with the resin left behind in the drill hole. After the injection, the packers or injection ports can be cut flush with the concrete surface or can be removed from the injection holes. Let SikaFix® HH Hydrophilic completely cure before removing the packers. Packer holes can be filled with Sikadur® 31 or SikaSet® Plug and troweled smooth.

Removal
Residual resin that has foamed from the crack can be removed with a scraper as long as it is not cured to a solid on the surface. If the material has cured, remove with a wire brush or hand held grinders. SikaFix® HH Hydrophilic will aggressively bond to concrete surfaces.

LIMITATIONS

- Low temperatures will significantly affect viscosity and reaction time.
- Avoid splashing water into open containers, as materi-

al is water activated.
- Water used to activate SikaFix® HH Hydrophilic must be in a range of pH 3–10 for optimum foam quality.
- Material must be stored between 40–90 °F (4–32 °C).
- Material must be preconditioned to between 60–90 °F (16–32 °C) before use.
- Ambient temperature must be between 40–90 °F (4–32 °C) for use.
- Use only in applications where exposure to moisture is constant.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

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