



Hydro Gel SX

DESCRIPTION AND USES:

Prime-Flex Hydro Gel SX is a moisture-curing, hydrophilic polyurethane resin designed to stop leaks in below-grade structures. It reacts with water to form either a watertight foam or impermeable gel depending on the water to Hydro Gel SX mix ratio (Range = 1:1 to 15:1).

Prime-Flex Hydro Gel SX is used in below-grade structures to stop water leaks in cracks and joints. It is typically injected using a multi-ratio two part pumping system. In the presence of moisture, Hydro Gel SX remains flexible and retains its tenacious bond with concrete or masonry surfaces. Hydro Gel SX can also migrate to the outside of leaking cracks and joints forming a water tight curtain and helping to stabilize the surrounding soil. This makes Hydro Gel SX ideal for stopping leaks in manholes, sewer pipes, and utility vaults. Applications for Prime-Flex Hydro Gel SX include stopping leaks and sealing:

- Failed Seals in Sanitary Sewer Pipe Joints
- Cracks and Joints in Manholes and Vaults
- Cracks and Joints in Foundations and Below-Grade Structures
- Cracks, Joints, and Failed Seals in Water Storage Tanks
- Cracks in Tunnels and Dams

ADVANTAGES:

- Non Flammable
- No V.O.C.'s
- Versatility - Foam or Gel
- Low Viscosity to Penetrate Tight Cracks, Joints, and Soil
- High Elongation to Allow Thermal or Structural Movement
- Economical to Use - Mixes with Up to 15 Parts of Water
- Resistant to Chemicals Normally Found in Sewer Effluent
- Adding Reinforcing Agents, Fillers, and Accelerators Can Enhance Strength, Flexibility, and Set Time
- ANSI / NSF STANDARD 61 - 2000 DRINKING WATER SYSTEM COMPONENTS - HEALTH EFFECTS *Listed 3P88 PRIME FLEX 970 SX* (Maximum Surface Area to Volume Ratio is 1 cm²/liter)

PACKAGING:

- 5 Gallon Units
- "Quick Mix" Cartridges
- Single Shot Cartridges

TYPICAL PHYSICAL PROPERTIES AT 73°F (23°C)

Appearance		Light Yellow
Solids Content	(ASTM D-1010)	81.6 %
Viscosity	(ASTM D-1638 @ 70°F)	440-540 cps
Weight	(ASTM D-1638)	9.0 lbs / gallon
Corrosiveness		Non-corrosive
Influence of pH		pH acceptable between 5-9

CURED FOAM PROPERTIES*

Elongation	(ASTM D-1564)	100% - 150%
Viscosity @ 8:1		20cps
Color @ 8:1		Milky White
Gel Time - 70°F @ 8:1 (Accelerators available for cold water)		45-55 seconds
Shrinkage (1 week @ 70°F / 100% RH)		0%
Toxicity		Non-toxic in cured form

*Physical properties will be greatly enhanced with the addition of Gel Reinforcing Agent to the mix water. Impurities in mix water may affect properties of cured material.

INSTALLATION METHOD:

Prime-Flex Hydro Gel SX is designed for sealing sanitary sewer joints using TV/Grout Sealing equipment. It can also be injected to seal leaks and fill voids around manholes, vaults, lateral connections, foundations, and other below-grade structures. For best results, inject both water and Prime-Flex Hydro Gel SX simultaneously using a twin, multi-ratio pump system. In areas where sufficient water is present, Prime-Flex Hydro Gel SX can be injected as a single component. Use hoses lined with butyl or polyethylene that have low moisture permeability. Hoses lined with nylon are not recommended. Information about pumps and accessories designed for injecting Prime-Flex Hydro Gel SX can be found on the Prime Resins web site www.primeresins.com or by calling the Prime Resins technical support line 1-800-321-7212.

Before using Prime-Flex Hydro Gel SX, insure that installation personnel wear appropriate personal protection equipment and follow all applicable confined space regulations.

The standard mix ratio for sewer grouting is 8 parts water to 1 part Prime-Flex Hydro Gel SX. Mixing 3 parts (or less) to one part Prime-Flex Hydro Gel SX will produce an expansive foam. Mixing between 3-11 parts water to one part Prime-Flex Hydro Gel SX will produce a gel material. The lower the ratio of water to Prime-Flex Hydro Gel SX, the stronger the gel. Use water with a pH of between 5 and 9. The temperature of the water should be below 75° F.

Reinforcing Agent

Prime Resins Gel Reinforcing Agent may be used to increase the tensile and bond strength and reduce the shrinkage of the cured gel. We recommend mixing 7 parts water to 1 part Gel Reinforcing Agent. An easy method for using Gel Reinforcing Agent is to start with 35 gallons of water. Add 5 gallons of Gel reinforcing Agent. The resulting 40 gallon mix can be injected along with 5 gallons of Prime-Flex Hydro Gel SX to achieve 45 gallons of cured gel.

Do not leave the water/reinforcing agent mixture in the pumping equipment, hoses, or tanks for extended periods of time. Equipment and tanks used with water/reinforcing agent can be flushed out and cleaned with water.

Accelerator

The gel time can be shortened by using Hydro Gel Accelerator. Accelerator is added to the mix water. Do not add accelerator directly to the Hydro Gel SX. Normally, 6-7 ounces (175-200 ml) of accelerator is added to 40 gallons of mix water. Because water temperature also affects the gel time, it is a good idea to prepare a small sample to verify the gel time. After adding accelerator to the water, pour 8 ounces into a cup. Add 1 ounce of Hydro Gel SX and measure the gel time. If the gel time is too fast, add more water to the mix to dilute the accelerator. If the gel time is too slow, add 1 ounce of accelerator. After adjusting the mix water/accelerator ratio, retest using the same procedure.

Clean-up

Contact with any moisture, including humidity in the air, will cause Prime-Flex Hydro Gel SX to react and begin to gel. Material left in pumps, hoses, or injection equipment should be flushed and cleaned immediately after use with Prime Resins Pump Flush, Acetone, or M.E.K. *These cleaning solvents are flammable and/or toxic and should be used only in well ventilated areas away from sources of ignition. Personnel using these solvents should wear appropriate personal protective equipment.*

Once opened, containers of Prime-Flex Hydro Gel SX should be used as soon as possible. Exposure to humidity will increase the material's viscosity and slow its reaction time.

CAUTION:

Vapor overexposure may cause respiratory irritation, central nervous system depression, and allergic reaction. Provide sufficient ventilation to maintain vapor concentrations below recommended exposure limits. Avoid contact with skin, eyes, and clothing. Wear protective rubber gloves and safety glasses or chemical goggles when handling or dispensing materials. Wash contaminated clothing before reuse. See MSDS for further information.

FIRST AID:

SKIN CONTACT - Wipe off contaminated area and wash with soap and water.

EYE CONTACT - Immediately flush eyes with large amounts of water for 10 minutes. Get medical attention.

INHALATION - Move to fresh air if symptoms occur. If breathing is difficult, seek medical attention.

INGESTION - Seek immediate medical attention.

CLEAN-UP:

Use Prime Flush cleaner, M.E.K. or Acetone to clean equipment. Use soap and water to clean skin. **STORAGE:** Store in dry conditions below 80°F (26°C). Shelf life in unopened pails stored below 80°F (26°C) is one year from date of manufacture. The useful life of the material is greatly decreased once the pail has been opened.

For best results, Prime-Flex polyurethane products should be installed by applicators with proper equipment and training.

Prime Resins manufactures all Prime-Flex products in our Conyers, Georgia plant. We have complete control of the quality and availability of these products. If you need more information about Prime-Flex or other Prime Resins products, visit our web site www.primeresins.com or call our technical support help line at 1-800-321-7212 Monday through Friday 8:00 A.M. to 5:00 P.M. E.S.T.

**FOR INDUSTRIAL USE ONLY, KEEPOUT OF REACH OF CHILDREN
PROTECT FROM MOISTURE, DO NOT ALLOW PRODUCT TO FREEZE
OBSERVE PRODUCT CAUTIONS**

WARRANTY:

Prime Resins warrants its products to be free from manufacturing defects and that products meet the published characteristics when tested in accordance with the ASTM and Prime Resins standards. No other warranties by Prime Resins are expressed or implied, including no warranty of merchantability or fitness for a particular purpose. Prime Resins will not be liable for damages of any sort resulting from any claimed breach of warranty. Prime Resins' liability under this warranty is limited to replacement of material or refund of sales price of the material. There are no warranties on any product that has exceeded the "shelf line" or "expiration date" printed on the package label.

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