

### Physical Properties

Appearance Black strips	Softening Point 320 °F	Specific Gravity @ 77° F 1.20 to 1.35
Flash Point 600°F		

### Approvals and Certifications

Meets Federal Specification SSS-210.

Certified to ANSI/NSF 61 for use in potable water systems.

### Description

SF302 - SYNKO-FLEX® WATERSTOP is a specially formulated non-swelling preformed joint sealant that provides a lasting, watertight bond to both fresh and cured concrete surfaces. SF302 - SYNKO-FLEX® WATERSTOP is a single-component, self-sealing adhesive compound, extruded in a square cross-section between two quick-release protective wrappers. It bonds to cured concrete surfaces and fuses with fresh concrete during the hydration and curing process to achieve a watertight seal within cold joints at footing, walls and slabs on a wide variety of concrete structures. It does not rely on swelling to achieve its watertight seal and therefore, it is unaffected by rain or wet conditions which may occur prior to joint completion.

#### Features:

- Easy to install.
- Eliminates split forming, wiring to rebar, heat welding of splices.
- Unaffected by rain or wet conditions during installation.
- Excellent chemical resistance.
- Bonds to most all substrates.
- Unaffected by cyclic wetting and drying.
- Never a risk of fracturing concrete like swelling type waterstops.
- Safe for use in potable water structures.

### Usage

SF302 - SYNKO-FLEX® WATERSTOP is designed to provide a watertight seal of cold joints in a wide range of concrete structures including; residential and commercial basements, secondary containment structures, highway tunnels, concrete lined storm drainage and irrigation channels, pedestrian tunnels and below-grade walkways, swimming pools and water features, below-grade parking garages, waste-water treatment plants, fish hatcheries and aquariums, potable water reservoirs, and water theme parks. SF302 - SYNKO-FLEX® WATERSTOP may also be used to seal around concrete, steel, PVC, or HDPE pipe penetrations through concrete walls or floor slabs. SF302 - SYNKO-FLEX® WATERSTOP is also ideal for use as a joint sealant on precast structures such as box culverts, septic tanks, and utility vaults.

### Surface Preparation

Joint surfaces should be clean and dry before priming and just prior to placing the SF302 - SYNKO-FLEX® WATERSTOP strips. Concrete should cure a minimum of 24 hours prior to priming. Ensure that concrete surfaces are free from form oils, release agents, curing compounds, laitance, and other dirt or debris. Use a wire brush or stiff bristle brush to clean surface prior to priming.

## Application

Positioning: SF302 - SYNKO-FLEX® WATERSTOP is generally positioned in the center of the joint. It may be placed at the bottom of a keyway, if a keyway is incorporated into the joint design. However, a keyway is not required for the use of SF302 - SYNKO-FLEX® WATERSTOP. Two inches of concrete coverage is recommended.

### Standard Application Method

Apply SF302 - SYNKO-FLEX® WATERSTOP to the cured surface and allow to dry. Drying time generally takes 2 to 3 hours. Drying time will take longer in low temperatures and in humid environments.

Peel the protective release paper from one side of the SF302 - SYNKO-FLEX® WATERSTOP strip. Place the strip onto the primed surface, pressing firmly along the entire length of the strip. The strip should be depressed to approximately 5/8 inch in thickness forcing it to widen to approximately 1-1/2 inches. Splice strips together with a 1-inch overlap or side lap. Remove the remaining release film. Fresh concrete may then be poured directly against the SF302 - SYNKO-FLEX® WATERSTOP. The waterstop sealing system is complete when the fresh concrete cures.

In cold weather, both the SF302 - SYNKO-FLEX® WATERSTOP strips and the concrete surface should be warmed just prior to application.

### Alternate Application Method

SF302 - SYNKO-FLEX® WATERSTOP may also be installed directly in the fresh concrete.

Horizontal Applications: Peel the protective release paper from one side of the SF302 - SYNKO-FLEX® WATERSTOP strip. While concrete is still wet, carefully press the SF302 - SYNKO-FLEX® WATERSTOP strips into the fresh concrete, leaving approximately 1/2 inch exposed above the concrete surface. When concrete cures, remove the remaining release film, and continue with pour.

Vertical Applications: Peel off release paper from one side of the strip, leaving the polyethylene release film on the formwork side of the SF302 - SYNKO-FLEX® WATERSTOP strip to prevent the Synko-Flex® from adhering to the formwork and to keep the Synko-Flex® clean once the forms are removed. The SF302 - SYNKO-FLEX® WATERSTOP is then nailed to the inside of the concrete form using small finishing nails. Chamfer strips (1/2") should be positioned on each side of the Synko-Flex® strip. Finishing nails will pull through the Synko-Flex® strips when end form is removed.

Limitations: SF302 - SYNKO-FLEX® WATERSTOP is designed for use in non-moving or reinforced joints. Contact manufacturer regarding applications where limited movement could be expected.

## Precautions

SF302 - SYNKO-FLEX® WATERSTOP is flammable. Use caution around open flame.

## Product Sizes

Non Size Item	1in x 13.16ft (4m) COIL (48.88 lb)	1in x 3.25ft (1m) STRIP (55 lb)
1in x 3ft STRIP (61.25 lb)		

## Limited Warranty

Specifications and other information contained herein supersede all previously printed matter and are subject to change without notice. All goods sold by the seller are warranted to be free from defects in material and workmanship and meet the physical and chemical requirements of Federal Specification SSS-210. The foregoing warranty is in lieu of and excludes all other warranties not expressly set forth herein, whether express or implied by operation of law or otherwise, including but not limited to any implied warranties of merchantability or fitness. Seller shall not be liable for incidental or consequential losses, damages or expenses, directly or indirectly arising from the sale, handling or use of the goods, or from any other cause relating thereto, and seller's liability hereunder in any case is expressly limited to the replacement (in the form originally shipped) of goods not complying with this agreement or at seller's election, to the repayment of, or crediting buyer with, an amount equal to the purchase price of such goods, whether such claims are for breach of warranty or negligence. Any claim by buyer with reference to the goods sold hereunder for any cause shall be deemed waived by buyer unless submitted to seller in writing within 30 days from the date buyer discovered or should have discovered any claimed breach.



## Material Safety Data Sheet - OSHA 174

Materials Safety Data Sheet  
May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

US Department of Labor  
Occupational Safety and Health Administration  
(Non-Mandatory Form) Form Approved OMB No. 1218-0072

H.M.I.S. RATING	
Health	1
Flammability	0
Reactivity	0
Protective Equip.	A

Last Rev Date: 09/14/2004

# SF302 - SYNKO-FLEX® WATERSTOP

### Section I

Manufacturer's Name HENRY COMPANY	Emergency Telephone 800-486-1278	Telephone 800-486-1278
Address HENRY COMPANY 2911 Slauson Ave HUNTINGTON PARK, CA 90255	Primary Contact Technical Services	Email techservices@henry.com
	NFPA 704	Preparer's Signature

### Section II Hazardous Ingredients / Identity Information

Hazardous Component	CAS#	OSHA_PEL	AGGIH_TL	Other Limits	Percent
Asphalt	8052.42.4	10 ppm	5 mg/m3	15 ppm TWA-STEL	

Comments: There are no S.A.R.A. 313 ingredients in this material in excess of Deminimus amounts. "Asphalt may contain detectable amounts of chemicals known to the State of California to cause cancer or reproductive harm."

### Section III Physical / Chemical Characteristics

Boiling Point 900 F	Melting Point N/A	Max VOC (g/l) 0
Vapor Pressure (mm Hg) N/A	Evaporation Rate (Butyl Acetate=1) <1	Max VOS (lbs/gal) 0
Vapor Density (Air=1) >1	Weight Per Gallon	% Water Volume 0
Color Black	Solubility in Water Not soluble	% Water Weight 0
Odor Faint petroleum solvent	Appearance Black fluid	% Volatile 0
Specific Gravity	PH N/A	

### Section IV Fire and Explosion Hazard Data

Flash Point Method N/A	Flash Point Temperature 550°F	LEL Flammable Limit N/A	UEL Flammable Limit N/A
Extinguishing Media Foam, CO2, Dry Chemical, Water Fog			
Fire Fighting Procedures Dried residue-use breathing masks			
Additional Procedures None			
Unusual Fire and Explosion Hazards None			

## Section V Reactivity Data

Stability		Conditions to Avoid	
Material is Stable			
Incompatibility (Materials to Avoid)		Hazardous Decompositions or Byproducts	
Strong Oxidants		Fumes, CO2, Carbon Monoxide if combustion is incomplete	
Hazardous Polymerization		Conditions to Avoid	
May Not Occur		Contact with moisture	

## Section VI Health Hazard Data

Routes of Entry:

If in Eyes

Symptoms	Emergency and First Aid Procedures
-- Eye irritation.	-- Flush gently with clean cool water and move individual away from exposure and into fresh air, consult physician.

If Ingested

Symptoms	Emergency and First Aid Procedures
-- May be a health hazard if ingested in large quantities.	-- Get prompt medical attention.

If Inhaled

Symptoms	Emergency and First Aid Procedures
-- N/A	-- N/A

If on Skin

Symptoms	Emergency and First Aid Procedures
-- Possible dermatitis or allergenic reaction on repeated contact.	-- Remove contaminated clothes and wash with a waterless hand cleaner or soap and water. -- Flush with clean cool water.

## Section VII Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled:

Keep people away. Recover free liquid. Add absorbent sand, earth, sawdust, etc to spill area. Avoid breathing vapors. Ventilate confined spaces. Keep products out of sewers and watercourses.

Waste Disposal Method:

Assure conformity with applicable disposal regulations

Precautions for Handling and Storage:

None.

Other Precautions:

None.

## Section VIII Control Measures

### Ventilation

#### Local Exhaust

N/A

#### Mechanical (General)

N/A

#### Special Ventilation

N/A.

#### Other

N/A

### Protective Equipment Required

#### Respirator

N/A

#### Gloves

N/A

#### Goggles

Wear eye protection

#### Clothing

N/A

### Work Hygienic Practices

Practice good work hygiene.

## Section IX Special Precautions for Safe Handling and Storage

### Precautions for Handling and Storage

None.

### Other Precautions

N/A

## Section X Transportation Data

### DOT

Non-Bulk Not Regulated

### IMDG

Not Regulated

### IATA

Not Regulated

## State Addendum

<u>Ingredient</u>	<u>CAS Number</u>	<u>Notes</u>
Asphalt	8052.42.4	A Florida Toxic Substances List material
Asphalt	8052.42.4	A Massachusetts Hazardous Substance List material
Asphalt	8052.42.4	A Minnesota Hazardous Substance List material
Asphalt	8052.42.4	A Pennsylvania Hazardous Substance List material
Asphalt	8052.42.4	A Washington State Permissible Exposure for Air Contaminants material
Asphalt	8052.42.4	Asphalt may contain detectable amounts of chemicals known to the State of California to cause cancer or reproductive harm.

## SYNKO-FLEX Preformed Adhesive Waterstop

# Tips for Best Adhesion on Vertical Surfaces

The application procedure for Synko-Flex waterstop consists of a few simple steps which are described on the yellow sheet titled, "Easy Steps to Better Waterstops." The following guidelines have been prepared to provide additional information on how to best apply Synko-Flex on vertical surfaces to achieve maximum bond.

**Tip #1: Clean the Concrete Surface:** Prior to applying the Synko-Flex primer, the concrete surface must be cleaned thoroughly. Using a wire brush, remove any laitance from the cured concrete surface. Follow up with a fine bristle brush (i.e. a clean paint brush) to remove dust. The surface must be dry and free from dirt, dust, form oils, release agents, curing compounds, and other debris prior to applying the primer.

**Tip #2: Application of Synko-Flex Primer:** Synko-Flex Primer is not a contact cement. It must dry thoroughly. Brush apply a 2-3 inch wide strip of Synko-Flex Primer in a thin coat along the center of the joint where the Synko-Flex will be positioned. The primer will penetrate into the surface of the concrete to provide a tenacious bond. The primer must be allowed to dry completely. A thin coat of primer will take 2 to 3 hour to dry in good weather conditions. In cold weather, drying may take longer. Drying will also take longer if a thicker coat is applied. Once dry, the primed concrete will have the appearance and feel of a glossy black painted surface. Use of the Synko-Flex primer provides the optimal surface condition for the bonding and adhesion of Synko-Flex waterstop.

Priming may take place several days before the application of the Synko-Flex waterstop. However, the primed surface should be wiped clean with a clean cloth just before application of the Synko-Flex strips.

**Tip #3: Application of the Synko-Flex Strip:**

1. Remove the clear polyethylene release film from one side of the Synko-Flex strip, leaving the release paper on the other side. Carefully position the strip along the center of the primed surface. Do not allow the Synko-Flex to come into contact with dirty or dusty surfaces. If a strip is dropped in the dirt, discard the strip and use a new strip.
2. Starting at the beginning of the strip, use both thumbs to firmly depress the Synko-Flex onto the primed surface. Continue this process throughout the entire length of the strip. The strip will widen as it is pressed downward. Applied properly, the strip should be depress until the width is at least 1.5" and a height of 5/8". Failure to press the strip firmly onto the surface may result in the strip falling off prior to pouring the other side of the joint.
3. Remove the release paper once the strip is applied properly.
4. On vertical surfaces, start at the bottom and work upward. Splice each strip together with a 1" overlap. Top strip should overlap the bottom (i.e. shingled).

5. Once Synko-Flex is installed properly, it is unaffected by rain. It should be kept clean however.

**Tip #4:** **Additional Measures:** If desired, a small concrete nail may be driven through the Synko-Flex strip and into the concrete surface every 12 to 16 inches. Although this step is not required, some contractors choose to take this step as a secondary measure to ensure that the Synko-Flex stays in position during the concrete pour. It is important however, that the Synko-Flex strip remain in contact with the concrete surface throughout the entire length of the strip.

**Tip #5:** **Cold Weather Installation:** See technical data bulletin on *Use of Synko-Flex in Cold Weather Conditions*.

#### **COMMON CAUSES OF ADHESION FAILURES:**

1. Failure to allow primer to dry completely.
2. Failure to press Synko-Flex firmly onto the primed concrete surface.
3. Applying Synko-Flex to dirty or dusty surfaces.
4. Failure to clean concrete surface before priming.

For additional questions or concerns, please contact our customer service department at 1-800-231-4551 or 713-671-9502.





**Physical Properties**

Aging Remains satisfactory indefinitely	Consistency @ 77° F Thick liquid with tenacious adhesive qualities	Specific Gravity @ 77° F .91
Appearance Liquid	Coverage 1 gal/200 lineal feet	Suspendability good
Asphalt By Weight 38% (ASTM D-41)	Flash Point 105° F (ASTM D-3278)	Viscosity Saybolt Furol 25-125 sec. (ASTM D-41)
Base Selected asphalts	Maximum VOC 300 g/l	Water By Volume <0.5 (ASTM D-41)
Brookfield Viscosity 75-125 cPs (ASTM D-2196)	Maximum VOS 2.5 lbs/gal	Weight Per Gallon 7.4-7.8 lbs (ASTM D-1475)
Color Black	Solids By Weight 63 %	Weight Per Gallon Calculated 7.6 lbs
Cone Pen Viscosity Asphalt Residue 20-50 dmm @ 77° F (ASTM D-41)		

**Approvals and Certifications**

Certified to ANSI/NSF 61

Consult Henry Representative for specific assembly ratings and requirements.  
(800) 486-1278



**Description**

SF311 - SYNKO-FLEX® PRIMER is a thin penetrating solution of premium asphalt. The primer readily penetrates the pores and seals dusty concrete surfaces to provide an optimal surface for the adhesion and bonding of Synko-Flex® adhesive waterstop. Primer is designed for application by brush.

**Usage**

The primer readily penetrates the pores and seals dust concrete surfaces to provide an optimal surface for the adhesion and bonding of Synko-Flex® or Hydro-Flex® preformed adhesive waterstops.

**Coverage**

Depending upon texture and porosity of the surface, approximately 1 gallon for every 200 lineal feet of waterstop.

**Surface Preparation**

Using a wire brush or stiff bristle brush, brush all loose dirt and particles from the joint surface to be primed. Joint surface should be free from dirt, dust, laitance, form oils, release agents, and curing compounds.

## Application

For Synko-Flex® Waterstop application to cured concrete surface, it is essential that the the instructions listed below are followed carefully.

Step 1: Using a wire brush or stiff bristle brush, brush all loose dirt and particles from the concrete surface to be primed. Concrete surface should be dry, clean, and free from dust, form oils, release agents, and curing compounds.

Step 2: Brush apply approximately 2" to 3" wide strip of SF311 - SYNKO-FLEX® PRIMER and allow to dry thoroughly for approximately 2 to 3 hours. The primed surface should be dry to touch prior to application of Synko-Flex® because Synko-Flex® will not adhere to wet primer.

Step 3: Apply Synko-Flex® strips over the dry prime surface. Press firmly so that intimate contact is achieved throughout the width and length of the Synko-Flex® Waterstop strip.

Step 4: Splice the end of each strip to the next strip with a 1" (one inch) overlap.

Step 5: In cold weather, warming the concrete surface, the SF311 - SYNKO-FLEX® PRIMER, and the Synko-Flex® strips helps improve the adhesive bond and effectiveness of the Synko-Flex® Waterstop.

Step 6: Gently pull on the Synko-Flex® strip to ensure proper adhesion. A properly bonded Synko-Flex® strip will remain firmly adhered to primed surface. (IF STRIP COMES OFF EASILY, REMOVE AND START OVER.)

Step 7: Pour concrete.

Keep container tightly sealed in storage. Stir product well before using.

## Precautions

Do not heat container or store at temperatures greater than 110° F. When transporting this product, be sure the pail is secured and the lid is tight. Do not allow pail to tumble as this may loosen the lid and allow leakage to occur. **CLOSE AIR INTAKES ON ROOF UNTIL SOLVENTS DISSIPATE!** Repeated or prolonged contact may cause skin irritation. **INTENTIONAL MISUSE BY DELIBERATE INHALATION MAY BE HARMFUL OR FATAL.**

Prevent contact with eyes, skin, and clothing. Wash thoroughly after handling. Avoid breathing vapors. Keep container closed. Use only with adequate ventilation. **DO NOT** take internally. Use impervious gloves, goggles, and, if the TLV is exceeded or use is performed in a poorly ventilated area, a NIOSH/MSHA approved respirator should be used. Use NIOSH/MSHA approved respirator protection in accordance with applicable laws and regulations. Dispose of empty containers properly or have them commercially cleaned before reusing.

## Cleanup

All equipment can be cleaned with kerosene or mineral spirits. Use care in handling these solvents.

## Caution

**COMBUSTIBLE! KEEP OUT OF REACH OF CHILDREN.** Contains petroleum distillate. Keep away from heat and flame. Do not heat container or store at temperatures greater than 110° F. **CLOSE AIR INTAKES** on roof until solvents dissipate. Contains volatile solvents that might contaminate potable water. Close container after use. **DANGER! HARMFUL OR FATAL IF SWALLOWED!** If swallowed, do not induce vomiting. **CALL A PHYSICIAN IMMEDIATELY!** Use protective measures to avoid contact with eyes and skin. In case of eye contact, open eyelids wide and flush immediately with plenty of water for at least 15 minutes. In case of accidental injection with power spray equipment, **GET MEDICAL ATTENTION IMMEDIATELY. USE ONLY WITH ADEQUATE VENTILATION!** If you experience eye watering, headaches, or dizziness, leave area immediately or increase fresh air or wear respiratory protection (NIOSH/MSHA TC 23C or equivalent). Repeated and prolonged occupational overexposure to solvent vapor may cause permanent brain and nervous system damage, and may cause liver or kidney damage.

**WARNING:** This product contains detectable amounts of chemicals known to the State of California to cause cancer, or birth defects, or other reproductive harm.

**EMPLOYERS** should obtain a copy of the Material Safety Data Sheet (MSDS) from your supplier or directly from Henry at the toll free number or website below.

## Product Sizes

Gallon (8.5 lb)