



ENVIRONMENTAL COATINGS

4702 E. Virginia Street • Mesa, Arizona 85215
AZ phone (480) 984-7608 • FAX (480) 380-4461

SEWER SHIELD®

SEWER SHIELD 100 TROWELABLE - PRODUCT DATA SHEET STRUCTURAL EPOXY

Product Description

Sewer Shield 100 is a 100% solids solvent free, low odor, epoxy system, impervious to a wide variety of acids, solvents, caustic solutions, oils, grease and many other chemicals. Sewer Shield 100 is specially formulated in various setting times and with virtually no odor, making it the ideal protection system for use in the food, dairy, meat beverage, brewery and chemical industries. Sewer Shield 100 when cured provides an impervious, hygienic, easy to clean surface. Its unique formula, which incorporates special adhesion promoters and stress recovering additives, provides a tenacious bond to most surfaces including damp concrete and also provides ample resilience to resist most cracking from thermal or physical abuse. Sewer Shield 100 is excellent as a lining system against chemical attack to walls, sumps, trenches, pit's and extremely effective in manholes and below ground wastewater protection.

Application

Sewer Shield 100 is applied by trowel to a thickness of 1/8" up to 1/4" in one application, which is then smoothed out by using a short nap roller moistened with a solvent and back rolled over the liner. This will flatten the liner and give it a smooth finish. It's self-priming capabilities and tolerance for damp surfaces offers the installer many labor saving steps as well as less shut down time due to the fact that Sewer Shield 100 has very low odor and no solvent. No special precautions are necessary to help contain any odor or solvent smell often found in many other systems.

Sewer Shield 100 is ideal for smoothing out pitted concrete walls, especially where a smooth, impervious surface is required. Further crack resistance due to concrete cracking can be enhanced by applying our Sewer Shield Caulk 100 over cracks and followed by the application of Sewer Shield 100.

Uses

Coverage

Coverage is dependent on the texture of the substrate. The average rate per gallon is 12.8 square feet at 1/8" thick.

Uses

SEWER SHIELD 100 is used as a lining system for protection against chemical attack to:

- Manholes
- Lift stations
- Headwork
- Pipelines
- Grit chambers
- Clarifiers
- Sumps
- Digesters
- Water containment areas
- Wastewater containment areas
- Floors and Walls
- Pits
- Trenches
- Tunnels

Due to the low odor and environmentally friendly nature it is ideal for use as a protection system in the wastewater and chemical industries.

Setting Times

Sewer Shield 100 is available in the following setting times:

Sewer Shield 100 for normal ambient temperature.

Sewer Shield FS (fast set) for fast setting times at ambient temperatures.

Sewer Shield XFS (extra fast set) for extra fast setting times at ambient temperatures.

Sewer Shield CS (cold set) for temperatures down to 35°F.

Colors

Sewer Shield 100 is supplied in the following colors: Ivory (Beige). Special colors are available upon request.

Packaging and Mixing

Sewer Shield 100 is supplied in either pre-measures one-gallon pack or as a standard three-gallon pack. Pour the contents of Part B into Part A and mix thoroughly with either a low speed drill (700 rpm) or a bucket mixer to a uniform consistency for approximately one minute, then add the pre-measured bag of Sewer Fill and mix again, making sure the sides and bottom are scraped. If a paddle is too small, it will not give a uniform mix and an incomplete cure will result together with wet spots. Over mixing with a high-speed drill will shorten the pot life as well as introduce excess air into the mix.

Priming

Sewer Shield 100 is self priming on new and existing concrete. However, if Sewer Shield is to be applied over "green concrete", then our Corro-Cure (a slow setting primer) must be used within 24 hours from pour, after Which Sewer Shield can be applied.

New and Existing concrete exposed to full sun must have a coat of Sewer Shield primer to stop out gassing which creates bubbles in the finish coat.

Clean-up Instructions

Clean tools and application equipment immediately after use with methyl ethyl ketone or xylol. Clean spills or drips while still wet with solvent. Dried material will require mechanical abrasion for removal.

Technical Service

For application procedures or surface conditions not specified above, please contact:

Environmental Coatings
4702 East Virginia Street
Mesa, AZ 85215
(480) 984-7608, Fax: (480) 380-4461

Sewer Shield- Product Data Sheet

Chemical Resistance
(21 day Immersion)

<u>Chemical</u>		<u>Rating</u>	<u>Chemical</u>		<u>Rating</u>
Acetic Acid	20%	OS	Nitric Acid	10%	FS
	Glacial	NR		30%	FS
Acetone		OS		50%	NR
Ammonium Hydroxide		FS	Oleic Acid		FS
Aniline		OS	Palm Kernel Oil		FS
Animal Fats		FS	Phosphoric Acid	30%	FS
Beer		FS		50%	FS
Chlorine Water	30%	FS		85%	OS
Chloroform		NR	Picric Acid		FS
Citric Acid	50%	FS	Salt Brine Solution		FS
Ethyl Acetate		OS	Sodium Hydroxide	30%	FS
HCL	10%	FS		50%	FS
	(37%)conc.	FS	Sodium Hypochlorite	5%	FS
Hydrogen Peroxide	10%	FS		10%	FS
	30%	FS		15%	FS
Hydrogen Sulfide		FS	Sulfuric Acid	1% to 10%	FS
Lactic Acid	20%	FS		1% to 50%	FS
	50%	OS		1% to 80%	FS
	88%	NR		1% to 98%	FS
Methanol		FS	Tannic Acid	50%	FS
Methylene Chloride		NR	Toluene		FS
MEK		OS	Xylene		FS

Note: The table should be used as a guideline, as no warranty can be expressed or implied regarding the accuracy of the information given as it would apply to actual plant use. Certain chemicals will discolor the epoxy, however, this will in no way affect the integrity of the system.

Code: FS-Frequent Spillage
OS-Occasional Spillage
NR-Not Recommended

Physical Characteristics

Solids by Weight: 100%

Density: Liquids Only

Part A: 9.5 lbs./gal.
Part B: 8.6 lbs./gal.
Mixed: 9.2 lbs./gal.

Curing Times (at 77°F)

Tack free time: 5 hours to flow
Full Chemical Cure: 7 days
Shelf Life: 12 Months

Mixing Ratio	By Volume	By Weight
Part A: Part B:	2:1	2.17:1
Sewer-Fill: Liquid	1.2:1	2.16:1

Pot Life (at 77°F): 45 minutes

Adhesion to Concrete: Failure in concrete.

VOC 0 GRAMS / LITER

Sewer Shield 100 has the highest chemical resistance in the coating industry.



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These are the standards for an “or equal”

Physical Properties For Sewer Shield 100

ASTM STANDARDS

Absorption	ASTM C-413	< 0.03%
Working time at 77° F:	ASTM C-308 modified	45 Minutes
Initial set time at 77° F:	ASTM C-308 modified	8 Hours
Bond to dry or damp concrete:	ASTM C-478	Failure in concrete
Compressive strength:	ASTM C-579	> 7000 psi
Coverage, theoretical:		38 square feet
Flexural strength:	ASTM C-580	> 4700 psi
Tensile strength:	ASTM C-580	> 1980 psi
Thermal expansion coefficient:		5.9×10^{-5} in/in/F°
Tensile elongation:		5%
Modulus of elasticity:	ASTM C-580	5%
Cure (set) time at 50° F:		18 Hours to flow
Cure (set) time at 70° F:		5 Hours to flow
Cure (set) time at 90° F:		3 Hours to flow
Standard thickness:		1/8 inch
Maximum thickness:		1 1/2 inches

Physical properties were determined on specimens prepared under laboratory conditions using applicable ASTM procedures. Actual field conditions may vary and yield different results: therefore, data are subject to reasonable deviation.

Sewer Shield 100 is also available in fast or slow setting times. Maximum strength and chemical resistance is achieved within 7 days. Flow within 5 hours.

SEWER SHIELD 100