

PRODUCT NAME

Rain-Shield™ Stain OP SB

Concrete Opaque Stain, Solvent Borne,
VOC Compliant



MANUFACTURER

Gemite® Products Inc.

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FEATURES

- Superior water repellency
- VOC below 400 g/L
- Maintains surface texture
- Long term color stability
- Allows moisture vapor transfer
- Reduces dirt and surface staining
- Minimizes efflorescence and migrating salts
- Reduces spalling and freeze/thaw deterioration
- Protects and extends life of structures

PRODUCT DESCRIPTION

Basic Use

Water-repellent penetrating stain for above-grade poured and precast smooth, textured or exposed aggregate concrete, cement board, concrete block (standard, lightweight and pumice), brick, natural stone and stucco. *Rain-Shield OP SB VOC* provides permanent color uniformity and corrects natural color imperfections of the substrate to beautify, protect and extend life of structures. *Rain-Shield OP SB VOC* can be used to protect concrete structures submerged in water from time to time, for example concrete bridge piers placed in river beds. It can also be used on light to medium traffic horizontal surfaces. Please contact Gemite Technical Service for more detail information regarding the use of *Rain-Shield OP SB VOC* in water submerged and horizontal applications.

Composition and Materials

Rain-Shield OP SB VOC is an acrylic resin based, silicone modified concrete stain. Unique formulation of *Rain-Shield OP SB VOC*, using inorganic oxide pigments, assures long term color stability, ultraviolet resistance, freeze/thaw resistance and alkali and pollution resistance. *Rain-Shield OP SB VOC* is integrally locked into the substrate due to its penetration properties and will not chip, peel or flake. It forms a water-repellent, but permeable (“breathable”) barrier which will prevent passage of water without preventing the normal transmission of water vapor to the outside atmosphere.

Limitations

Do not apply below grade or over damp surfaces, or if rain is imminent, or if either surface or ambient temperature is 4°C (40°F) or below, or when humidity is over 90%. Do not apply over painted surfaces or wood surfaces. *Rain-Shield OP SB VOC* is not designed to waterproof cracked surfaces under wind driven rain or other severe conditions. Two coat application is generally required for color uniformity. Prior to application a field test should be conducted on a small, inconspicuous area of the structure to determine suitability of the application technique and the actual application rate for color uniformity. Written approval should be obtained from Architect / Owner prior to general application.

Health and Safety

Solvents are flammable in liquid state. Use only in a well ventilated area. Keep away from heat, sparks and open flame. No smoking shall be allowed in or near the immediate work area. Use explosion proof equipment. Avoid breathing of vapor or spray mist. For exterior applications approved chemical cartridge respirator should be worn by the applicator. For interior application, use mechanical exhaust such as approved air line or positive pressure hose masks. For additional information on safety requirements, refer to *Rain-Shield OP SB VOC* MSDS. FOR INDUSTRIAL USE ONLY.

Colors

Variety of standard and custom colors are available. Every effort is made to fill each order using the same batch number, but different batch numbers of the same color are occasionally sent to complete an order. Whenever this occurs it is the sole responsibility of the applicator to make certain that only one batch number is used on any one side of the building. Different batch numbers cannot be used on the same wall unless they are mixed together to ensure total color uniformity. When panels are stained at the factory ascertain that all panels attached on one side of a building are stained with the same batch.

Packaging

Rain-Shield OP SB VOC is a one component, ready-to-use liquid material, packaged in 20 L (5.3 USG) pails and 209 L (55.2 USG) drums.

Coverage	m ² /L	ft ² /USG
Concrete	3.6 - 5.0	146 - 200
Concrete Block*	1.2 - 2.5	50 - 100
Brick *	1.8 - 3.1	75 - 125
Stucco *	1.2 - 3.1	50 - 125

Apply approximately 1/2 of total *Rain-Shield OP SB VOC* in each of two separate applications over concrete.

Gemite Products Inc.
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07120 Fluid Applied Waterproofing
09811 Chemical Resistant Coatings

* Apply approximately 2/3 of total *Rain-Shield OP SB VOC* on first coat and the remaining 1/3 on the second coat.

The coverages are only given as guideline and depend greatly on the roughness and porosity of the substrate, absorption rate satisfactory to Architect / Owner and application method used.

Carry out field application to determine the exact material quantity requirements.

Storage and Transportation

Two years in unopened containers. Store at temperatures above 10°C (50°F) and less than 29°C (85°F). Packaged 36 pails or 4 drums per pallet.

TECHNICAL DATA

Flash Point	42°C (107°F)
Accelerated Weathering (ASTM G 23-69 2000 hr)	Excellent color retention and resistance to chalking
Salt Spray/Fog 1000 hrs exposure (ASTM D-1645 & 117)	Excellent color retention and no staining (efflorescence)
Sulfide Staining (ASTM D-1712)	Excellent color retention
Chemical Reagents (ASTM D-543)	Excellent resistance
Salt Scaling (mod. ASTM C-672)	No scaling
Permeance (ASTM E-96)	1131 ng/Pa.s.m ² (19.7 perms)
Weight	0.98 kg/L (8.2 lbs/Gal.)
Volume Solids	34%

INSTALLATION

Guide Specification and Application Instructions contain additional information specific to each application and must be followed.

Surface Preparation

All surfaces must be structurally sound, clean, dry and fully cured. New concrete and masonry must cure for 4 weeks minimum. Remove all dirt, dust, efflorescence, curing or form release agents, cement scaling and previous coatings by wire brush, waterblasting, scraping or other means. Surfaces such as smooth dense brick, smooth dense or GFR concrete and cement board must be sandblasted for maximum penetration. If *Rain-Shield OP SB VOC* cannot penetrate, it will debond. Repair old cracks, openings and imperfections in the substrate prior to *Rain-Shield OP SB VOC* application.

Mixing

Mix thoroughly (minimum 5 minutes) before application. Do not thin. Use air operated or other explosion proof mixer with a blade capable of uniformly mixing entire container.

Application

Use airless spray equipment capable of delivering 6,980 KPa (1,000 psi) and 1.9 L (1/2 USG) per minute delivery. Heavier equipment can be used on larger projects. A self-cleaning reversible tip with orifice 0.330 to 0.425 mm (0.013 in to 0.017 in) and minimum 40 degree fan angle is recommended. Do not thin. Roller and brush application is recommended only for confined areas or for edging work. Brush or roll *Rain-Shield OP SB VOC*

at the same rate as spray application to minimize finished color variations.

Two coats of *Rain-Shield OP SB VOC* are recommended for best results. The second coat can be applied as soon as the first coat is dry. Each coat shall be first sprayed uniformly in a horizontal direction, followed by a vertical overlapping uniform application ("cross coat") method. Application that fully and evenly wets the entire surface without sags or runs prevents unsightly lap or rundown marks. Establish break lines conforming to surface design breaks where possible. Recoat in 1 hour at 70°F (21°C).

In exterior horizontal applications, or vertical water submerged conditions, it is recommended to use *Gem-Gard SX/SL* as a primer. In applications where an increased abrasion resistance or cleanability maybe required, apply an additional coat of *Gem-Seal MB*, solvent borne, clear acrylic sealer on top of the *Rain-Shield OP SB VOC*. Please contact Gemite Technical Service for further information.

Curing

Rain-Shield OP SB VOC is air dry-cured. It will be tack free and accept rain within 1/2 to 2 hours. Fully cured in 5 to 7 days depending upon temperature and relative humidity.

Clean up

Clean all spray equipment and hoses immediately with mineral spirits or xylol. Overspray on glass, metal and painted surfaces should be immediately wiped up with mineral spirits or xylol.

AVAILABILITY AND COST

Rain-Shield OP SB VOC is available worldwide. Contact the manufacturer for the name of the nearest Representative or Distributor and pricing information. When ordering specify the color. Custom color suitability and pricing must be established by Gemite before order can be processed.

MAINTENANCE

Rain-Shield OP SB VOC is self-washing. The atmospheric dust collected on the surface can be easily cleaned with water based detergent and water. If repair is required, simply apply more of the same product.

WARRANTY

A limited twelve (12) month Material Replacement Warranty is available. For complete details contact Gemite's Head Office.

TECHNICAL SERVICE

Advice on suitability of *Rain-Shield OP SB VOC* for specific application, application instructions and specification assistance is available from Technical Service: USA 888-443-6483 or Canada 905-672-2020.

Short Specification

The water repellent stain will be a solvent based, VOC compliant, pure acrylic resin system, *Rain-Shield OP SB VOC*, as manufactured by Gemite Products Inc., [USA 888-443-6483] [Canada 905-672-2020]. It shall be applied at a minimum rate of _____ ft²/USG (_____ m²/L) per manufacturer's current Guide Specifications and Application Instructions. It will meet all the Technical Data specified in the current *Rain-Shield OP SB VOC* Product Data Sheet.