

# V-SEAL® 102 WINTER GUARD

Penetrating Sealer and Curing Compound for  
Broom Finish Concrete and Porous Masonry

## TECHNICAL DATA SHEET

### PRODUCT DESCRIPTION

V-SEAL® 102 Winter Guard is a chemically reactive deep penetrating sealer that permanently fuses within porous broom finish concrete and porous concrete block (CMU block). V-SEAL® 102 will significantly increase surface strength, combat freeze/thaw damage, and limit penetration of stains such as oil, gas, grease, and salt. V-SEAL® 102 reduces dusting, retards mold and mildew, restricts efflorescence and hydrostatic moisture, and imparts waterproof characteristics. V-SEAL® 102 is breathable with minimal impact to traction coefficient. V-SEAL® 102 creates a cross-linked insoluble internal membrane barrier that will wear away only if the substrate itself wears away below sealer penetration. VSEAL® 102 has been tested to exceed ASTM C666 Freeze/Thaw Test 1000+ cycles .0096 (standard 300 cycles .060) and pass ASTM C672 Scaling Resistance Test with no scaling). V-SEAL® 102 meets all criteria of ASTM C156, ASTM C309, and AASHTO M 148 - Liquid Membrane-Forming Curing Compound.

### RECOMMENDED USES

Long-term water repellent sealer for existing broom finish concrete and porous concrete block, and liquid membrane-forming curing compound for curing new broom finish concrete. V-SEAL® 102 is recommended for commercial and residential structures such as parking decks, roads, driveways, sidewalks, patios, basements, poured concrete and block walls. This product is suitable for interior and exterior, horizontal and vertical, above and below grade applications. V-SEAL® 102 is compatible with most glues, mastics, and topical coatings.

### PRODUCT CHARACTERISTICS

#### MSDS Information/ Physical Data:

Boiling Point:	212° F
Vapor Pressure:	20° C/68° F water
Solubility in Water:	Excellent
Evaporation Rate:	Similar to water
Appearance and Odor:	White - slightly amine
Specific Gravity:	(H2O-1):1.1 to 1.3 @ 20°C
% Volatile by Volume:	8 g/L
pH:	11.5
Flashpoint:	N/A
Flammable Limits:	N/A

### FINISH

Flat/Clear

### \*COVERAGE RATE

200-300 sq. ft. per gallon broom finish/rough

150-300 sq. ft. per gallon porous block

\*Coverage rate is for estimating purposes only. Application rate is based upon porosity and absorption. Always test absorption prior to application. When properly applied product should create a wet surface sheen and absorb within 1 minute without puddles. Immediately disperse puddles. Excessive application may result in white residue which will not affect sealer performance and generally dissipates over time, but may be removed immediately with abrasion.

### \*\*DRYING TIME

Dry to touch 1-3 hours, traffic 6-12 hours

\*\*Drying time is for estimating purposes only.

### PERFORMANCE CHARACTERISTICS

ASTM C156:	Water retention 0.47 kg/m <sup>2</sup> - Specification 0.55 kg/m <sup>2</sup>
ASTM C309:	Passed, moisture loss - .21 kg/m <sup>2</sup>
AASHTO M 148:	Passed, moisture loss - .21 kg/m <sup>2</sup>
ASTM C666	Freeze/Thaw: 1000+ cycles. Passed. .0096%
ASTM C672:	Scaling Resistance: Passed. No Scaling
ASTM D2939:	Resistance to water solubility, flexibility, no cracking
ASTM D466:	Resistance to water flow and action. Excellent adhesion. No remulsification
ASTM E96:	Water vapor transmission 04 grains/sq./ft./hr. Water permeability - .102 perms
ASTM C836:	Film thickness on a vertical scale: Passed.
SS-W-110C:	Water repellence on masonry test:1.925%
AASHTO 259 and T260 90 Day Ponding:	Passed
UV-Testing (modified)	No change. Excellent results
ASTM C 1315 6.6.4:	1000 megajoules/235 nM UV light adhesion ASTM-Elcometer Pull: 280 lbs/ Concrete failed 1st/no delamination
ASTM C642 Absorption:	Phase 1 48 hr:0.62%-phase 2 50 day: 1.25%
ASTM Scaling Resistance:	No scaling
NCHRP 244, Series IV - 4.1 Southern Exposure:	Absorbed chloride: <7%
NCHRP 244, Series IV - 4.1 Northern Exposure:	Absorbed chloride: <7%
NCHRP 244 Series -11 Cube Test: 3.1:	<12% weight gain
NCHRP 244 Series -11 Cube Test: 3.2:	<9% absorbed chloride
Moisture Vapor Transmission Rate:	2%

### PACKAGING

1 gallon jugs

5 gallon pails

55 gallon drums and concentrate kits

### SHIPPING

Normal package delivery and trucking.

### SHELF LIFE & STORAGE

Two years unopened when stored in a dry area without freezing.

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### APPLICATION

V-SEAL® 102 is a reactive penetrating sealer. Always test porosity prior to application (especially on dark colored surfaces). Surface must be porous and free of loose debris, mildew, topical oil, paint or other surface coatings. Surface should be dry (no standing water). No mixing is required. Substrate and ambient temperatures should not be below 35°F or above 100°F during the application and drying period. Apply uniformly with broom, roller, or low pressure sprayer. Specific coverage rate is based upon substrate porosity. Product should create a slightly white wet surface sheen and absorb within 1 minute without puddles. Puddles should be immediately dispersed as excessive application may result in white residue which will not affect sealer performance and generally dissipates over time. Wash application materials with warm water. Generally, only one application is required. For curing new concrete, apply V-SEAL® 102 after all bleed water is gone, finishing is complete, and the concrete will withstand the weight of a person and not be marred. For new concrete, a light secondary application of V-SEAL® 102 or V-SEAL® Phase II Enhancer may be applied any time after 24 hours to enhance beading action and water repellence. Always conduct a small test to assure sealer absorption.

### LIMITATIONS

V-SEAL® 102 is designed to work only on porous masonry substrates and is not intended for asphalt. This product may etch glass, vinyl, and metal. Avoid contact with eyes and skin. V-SEAL® 102 may be damaged if frozen prior to use. Not intended to seal cracks of more than 1/16 inch. V-SEAL Concrete Sealers (V-SEAL) solely and expressly warrants that its products shall be free from defects in materials and workmanship. V-SEAL MAKES NO OTHER WARRANTIES, IMPLIED OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR ORDINARY OR PARTICULAR USE OF ITS PRODUCTS. Product descriptions, illustrations, or demonstrations, if any, are for illustration purposes only and do not constitute a warranty or warranty alteration. Upon purchase, handling, storage, and application of V-SEAL products is beyond control of the company. V-SEAL specifically does not warranty performance results. The purchaser should conduct a test prior to application and shall be solely responsible for determining the suitability of V-SEAL products for the purchaser's intended purposes. V-SEAL shall bear no liability, other than the replacement of the defective product. The purchaser shall have no claim for incidental or consequential damages.

### REGULATORY

V-SEAL 102 complies with EPA, FDA and OSHA strict requirements, and contains no solvents and only 8 g/L Volatile Organic Compounds (VOC). This product is considered a non-hazardous chemical under OSHA Hazard Communication Standard (29CFR 1910.1200)  
Transportation Class: 55.

### SAFETY / FIRST AID PRECAUTIONS

Eyes: Flush with water for at least 15 minutes  
Skin: Wash thoroughly with soap and water  
Inhalation: No TVL established. Move subject to fresh air.  
Digestion: If consumed consult physician.

