

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 penetrating sealer that permanently fuses within porous broom finish concrete and porous concrete block (CMU block). V-SEAL® 102 is formulated to provide maximum protection from the effects of freeze/thaw, reduce penetration of stains and damaging impurities such as dirt, oil and salt, reduce dusting, retard mold and mildew, and limit hydrostatic moisture and efflorescence. V-SEAL® 102 can be applied to new broom finish concrete as soon as the finished surface can withstand the weight of a worker without marring, and at any time thereafter. V-SEAL® 102 is breathable, with virtually no impact on surface traction, and is compatible with surface treatments such as joint fillers, crack fillers, and topical coatings. V-SEAL® 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. 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.

RECOMMENDED USES

Long-term water repellence and freeze/thaw protection 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.

PRODUCT CHARACTERISTICS

SDS 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
Finish:	Flat/Clear
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

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.

PERFORMANCE STANDARDS

ASTM C309 Type 1 Class A + B:	Pass
ASTM C156 (Water Retention Spec: 0.55 kg/m ²):	0.45 kg/m ²
AASHTO M 148:	Pass
AASHTO T 155 (Water Retention Spec: 0.55 kg/m ²):	0.45 kg/m ²
ASTM C666 (Freeze/Thaw, 1001 cycles):	Passed. 0.0096%
ASTM C672 (Scaling Resistance):	Passed. No Scaling
ASTM E96 Water vapor transmission:	0.04 grains/sq.ft./hr.
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-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 (Absorbed chloride)	
Southern Exposure:	<7%
Northern Exposure:	<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:	Facilitates Proper MVT

PACKAGING

1 gallon jugs, 5 gallon pails, 55 gallon drums or concentrate kits.

SHELF-LIFE & STORAGE

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

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APPLICATION & USAGE:

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. Newly poured concrete should not be subjected to rain or other sources of water prior to obtaining surface hardness (surface cannot be marred) which may be highly variable based upon temperature and humidity (at least 2-12 hours). 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.

DRYING TIME**

Dry to touch 1-3 hours, traffic 6-12 hours. Inclement weather should be avoided for at least 12 hours.

**Drying time is for estimating purposes only.

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.

CLEAN UP

Application tools should be cleaned with warm water before allowing product to dry.

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.

See Safety Data Sheet for details.

EMERGENCY RESPONSE PHONE NUMBER:

(800) 424-9300 CHEMTREC

KEEP OUT OF REACH OF CHILDREN

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.



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