

# V-SEAL® 101 MULTI-SURFACE

Reactive Penetrating Sealer and Curing Agent for  
Smooth Concrete, Brick, Stone, Stucco, and Porous Masonry

## TECHNICAL DATA SHEET

### PRODUCT DESCRIPTION

V-SEAL® 101 is a chemically reactive deep penetrating sealer that permanently fuses within porous substrates of concrete, brick, stone, and mortar to significantly increase surface strength, combat freeze/thaw damage, and limit penetration of stains and damaging impurities such as oil, gas, grease, and salt. V-SEAL® 101 reduces dusting, retards mold and mildew, restricts efflorescence and hydrostatic moisture, and imparts waterproof characteristics. V-SEAL® 101 is breathable with minimal impact to traction coefficient. V-SEAL 101® has excellent moisture retention characteristics and can be used as a curing agent for new machine trowel concrete. V-SEAL 101 creates a cross-linked insoluble internal membrane barrier that will wear away only if the substrate itself wears away below sealer penetration. In addition to being a powerful exterior sealer, V-SEAL® 101 leaves no topical residue and is an ideal primer to protect the appearance and lifespan of topical coatings and floor treatments.

### RECOMMENDED USES

Sealing residential and commercial structures such as machine trowel concrete floors, brick walls and chimneys, mortar, stucco, pavers, block, natural stone, artificial stone, roads, driveways, parking decks, sidewalks, patios, and basements. Architectural features such as countertops, mantels, furniture, ponds, fountains, and statues. V-SEAL® 101 is suitable for interior and exterior, horizontal and vertical, above and below grade applications. This product is compatible with most glues, mastics, and topical coatings. V-SEAL® 101 can be used as a curing agent for new machine trowel concrete.

### 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:	Clear - slightly amine
Specific Gravity:	(H2O-1): 1.1 to 1.3 @ 20°C
% Volatile by Volume:	Zero 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  
300-600 sq. ft. per gallon machine trowel/dense

\*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 D2939:	Resistance to water solubility, flexibility, no cracking
ASTM D466:	Resistance to water flow and action. Excellent adhesion. No reemulsification.
ASTM E96:	Water vapor transmission 0.4 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%
ASTM C672:	Freeze/thaw cycle: 100 day cycle. Passed. No scaling.
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 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.

PAGE 1 OF 2



**Concrete Sealers &  
Concrete Coatings**

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### APPLICATION

V-SEAL® 101 is a reactive penetrating sealer. Always test porosity prior to application (especially on machine troweled concrete and 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 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® 101 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® 101 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® 101 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® 101 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® 101 complies with EPA, FDA and OSHA requirements, contains no solvents, and 0 g/L Volatile Organic Compounds (VOC). This product is considered a non-hazardous chemical under DOT (49CFR) and 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.

