

# V-SEAL® 101 MULTI-SURFACE

Reactive Penetrating Sealer for All Porous Concrete and Masonry

## TECHNICAL DATA SHEET

### PRODUCT DESCRIPTION

V-SEAL® 101 is a chemically reactive penetrating sealer that permanently fuses within all porous masonry, including: concrete, brick, block, stone, grout, mortar, and stucco. V-SEAL® 101 is formulated to combat 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® 101 can be applied to new concrete as soon as the finished surface can withstand the weight of a worker without marring, and at any time thereafter. V-SEAL® 101 is breathable, with virtually no impact on surface traction, is compatible with joint fillers and crack fillers, and is an ideal primer to protect the appearance and lifespan of topical coatings, glue, tape and other floor treatments. 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.

### RECOMMENDED USES

Protecting residential and commercial structures, interior and exterior, such as machine trowel concrete floors, brick walls and chimneys, mortar, grout, 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 horizontal and vertical, above and below grade applications and is an effective moisture reducing primer for topical coatings, glue, tape and floor treatments. Subject to user verification prior to application, V-SEAL® 101 may also be used to seal and protect other porous substrates such as wood, terra cotta, clay, dry wall, and more.

### 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:	Clear – slightly amine
Finish:	Flat/Clear
Specific Gravity:	(H2O-1): 1.1 to 1.3 @ 20°C
% Volatile by Volume:	0 g/L
pH:	11.5
Flashpoint:	N/A
Flammable Limits:	N/A

### COVERAGE RATE\*

100-200 sq. ft. per gallon broom finish/rough  
200-400 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.

### PERFORMANCE STANDARDS

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:	0.04 grains/sq.ft./hr.
Water permeability:	0.102 perms
ASTM C836 (Film thickness on a vertical scale):	Passed.
SS-W-110C (Water repellence on masonry test):	1.925%
ASTM C672: (100 day Freeze/Thaw 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 Exp: Absorbed chloride: <7%
	Northern Exp: Absorbed chloride: <7%
NCHRP 244 Series –11 Cube Test:	3.1: <12% weight gain
	3.2: <9% absorbed chloride
Moisture Vapor Transmission Rate:	2%

### 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® 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. 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 on temperature and humidity (at least 2-12 hours). 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.

### 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® 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.

### 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 complete safety information.

EMERGENCY RESPONSE PHONE NUMBER:

(800) 424-9300 CHEMTREC

**KEEP OUT OF REACH OF CHILDREN**

### 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.

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**V-SEAL®**  
Concrete Sealers & Concrete Coatings

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