

V-SEAL® 101 Multi-Surface

Penetrating Sealer and Curing Agent Concrete and Porous Masonry

Product Description

V-SEAL 101 is a reactive penetrating proprietary catalyzed potassium silicate solution that permanently fuses within porous substrates of concrete, brick, stone, and mortar to significantly increase surface strength; combat freeze/thaw damage, scaling and spalling; 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 creates a cross-linked insoluble methyl-silicone internal membrane that will wear away only if the substrate itself wears away below sealer penetration. V-SEAL 101 enhances curing of new concrete (generally floors and walls). V-SEAL 101 is an excellent moisture mitigation sealer for slab on grade floors, increasing surface strength; improving stain resistance; and lowering hydrostatic moisture to promote adhesion of floor coatings, glues and mastics.

Recommended Uses

Sealing residential and commercial structures such as roads, driveways, parking decks, sidewalks, patios. Masonry products such as pavers, block, and porous stone. Architectural features such as countertops, mantels, furniture, ponds, fountains, and statues. Horizontal or Vertical. Above or below grade. Compatible with most glues or topical coatings. Enhances curing of new concrete.

Product Characteristics

UMSDS 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:	(H ₂ O-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. broom finish, rough 300-600 sq. ft. machine trowel, dense
Drying Time Hours**:	Dry to touch 1-3, traffic 6-12
Shelf Life:	2 years unopened

*Coverage rate for estimating purposes only. Application rate based upon porosity and absorption. Always test absorption prior to application. When properly applied product should create a slightly white 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 or power washing.

**Drying time 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 remulsification
ASTM E96:	Water vapor transmission 04 grains/sq.ft./hr. Water permeability – 0102 perms
ASTM 836:	Film thickness on a vertical scale
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 1 st /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%

Color

V-SEAL® 101 has a clear appearance in the bottle. Upon proper application the substrate will have little, or no, noticeable change in appearance when dry. Color tint is available in a selection of colors.

Surface Preparation

V-SEAL® 102 is a reactive penetrating sealer. The surface must be clean and porous enough to allow penetration into the substrate. Surfaces should be clean and free of dirt, debris, mildew, oil, grease and other contaminants.

Ordering/Shipping Information

Packaging:	1 gal. jugs 5 gal. pails 55 gal. drums and concentrate kits
Shipping:	Normal package delivery and trucking



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Recommended Systems

Existing Concrete: V-SEAL 101 is a reactive penetrating sealer. Always determine porosity prior to application. 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. Do not apply below 40°F or above 100°F. Apply uniformly with 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 or power washing. Generally, only one application is required.

Curing New Concrete: 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. Apply uniformly with low pressure sprayer. Specific coverage rate is based upon substrate porosity. Actual application rate based upon porosity and absorption. Product should create a wet surface sheen and absorb within 1 minute without puddles. 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 (2-12 hours or more). For new concrete, a light secondary application of V-SEAL 101 or V-SEAL Phase II Enhancer may be applied any time after 7 days to enhance beading action and water repellence – conduct a small test to assure sealer absorption.

Application

V-SEAL 101 is a penetrating sealer. **Always test porosity prior to application. 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. Do not apply below 40°F or above 100°F. Apply uniformly with 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 or power washing. 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.

Limitations

V-SEAL 101 is designed to work only on porous masonry substrates and is not intended for asphalt and may etch glass, vinyl, and metal. Avoid contact with eyes and skin. Sealer may be damaged if frozen prior to use. Not intended to seal cracks of more than 1/16 inch. The Company shall bear no liability, other than replacement of defective product. The Company specifically does not warranty specific performance results or compatibility with products manufactured by others. A small test must be conducted prior to application. Based upon this test, the purchaser shall determine for themselves the suitability of this product for the intended use.

Regulatory

V-SEAL 101 complies with EPA, FDA and OSHA strict requirements, and contains no solvents and zero 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.

