

Product Data

SIL-ACT® MULTIGARD®

Water Dispersible Silane



ADVANCED
CHEMICAL
TECHNOLOGIES, Inc.

"Protecting the World's Infrastructure"

VOC COMPLIANT

SIL-ACT® MULTIGARD® is a clear, penetrating silane treatment when applied with our proprietary system renders concrete, masonry and many natural stones to become repellent to water, chloride, waterborne contaminants and other weathering elements. **SIL-ACT® MULTIGARD®** does not contain a flammable organic solvent carrier thus greatly reducing hazards of explosion, fire, eye injury, chemical inhalation and skin irritation. **SIL-ACT® MULTIGARD®** complies with the Volatile Organic Content (VOC) limits established by the U.S. Environmental Protection Agency and many of the more stringent state limitations.

DURABLE

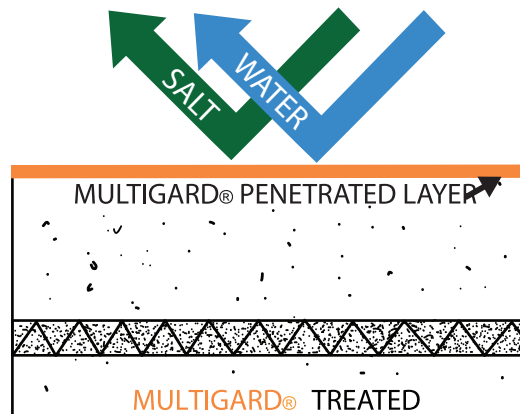
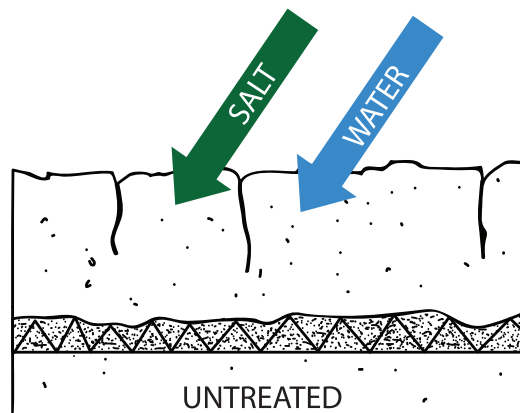
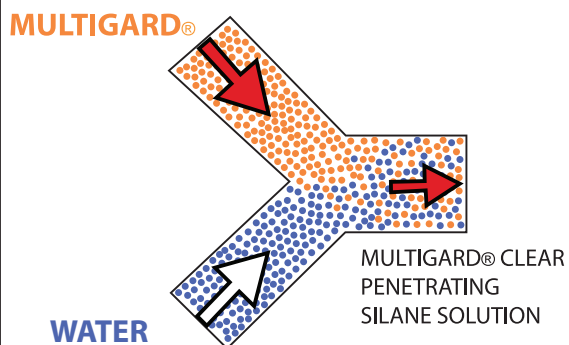
SIL-ACT® MULTIGARD® utilizes a patented application system. This system efficiently reduces labor costs and eliminates many of the problems associated with emulsified silane products. **SIL-ACT® MULTIGARD®** chemically bonds with the substrate forming a penetrated layer below the surface that acts as a one way filter. Water, chloride and other waterborne contaminants are repelled without restricting the substrates natural vapor permeability. The shearing effect between **SIL-ACT® MULTIGARD®** and water produced by this system enhances the reactivity of the silane resulting in waterproofing characteristics similar to 100 percent solids, but at a much reduced cost.

FLEXIBLE

SIL-ACT® MULTIGARD® is an effective treatment for brick, masonry, cementitious mortars, stucco, many natural stones and cast-in-place, precast, prestressed and architectural concretes.

Structures that can be treated include:

- Parking decks
- Bridges
- Commercial buildings
- Airport pavements
- Highways
- Cooling towers
- Stadiums
- Other horizontal and vertical structures



MULTIGARD®'s penetrated silane treatment layer stops water and salt intrusion into concrete, brick, masonry and many types of stone without affecting natural vapor permeability.

TECHNICAL DATA

PROPERTY	TEST	MULTIGARD®	
Specific Gravity Density Solids Content VOC Content	Method 24, ASTM D-5095	0.93 7.93 lb/gal > 90% by weight < 350 g/L	
Dispersion Rate in Water		9:1	6:1
Drying time at 70°F		½ hour	½ hour
Moisture Absorption Resistance	ASTM C-642-82	0.23% 48 hours 1.64% 50 days	0.14% 48 hours 1.50% 50 days
Depth of Penetration	NCHRP 244 Series II	0.17 in, 4.3 mm	0.18 in, 4.6 mm
Waterproofing	Alberta Transp. & Utilities (1a)	91.1%	91.4%
Waterproofing after Abrasion	Alberta Transp. & Utilities (1a)	87.9%	87.5%
Alkali Resistance	Alberta Transp. & Utilities (1a)	89.7%	89.6%
Reduction in Water Weight Gain	NCHRP 244 Series II	84.7%	93.6%
Reduction in Absorbed Chloride	NCHRP 244 Series II	92%	81%
Moisture Vapor Permeability	NCHRP 244 Series II	100%	100%
Freeze-Thaw Scaling Resistance	ASTM C-672-84	0 at 50 cycles	0 at 50 cycles
Resistance of Chloride on Penetration (1.0" depth)	AASHTO T-259/T-260	0.39 lb / yd ³	

INSTRUCTIONS

1. Test a small area prior to general application to ensure compatibility, desired results and coverage rates.
2. Treatment is most effective when the surface to be treated is clean and dry. Remove dirt, dust, oil, grease, curing compounds, coatings and other surface contaminants. Waterblasting, sandblasting or shotblasting may be required.
3. Please refer to Advanced Chemical Technology's Clean-Act™ line of concrete and masonry detergents and cleaners.
4. Do not proceed unless surface and air temperature is between 40°F and 110°F. Do not apply if frost, ice, or standing water are visible on the surface to be treated.
5. Protect windows, metals, etc. from overspray. If necessary, immediately clean overspray with a clean dry cloth, soap and water or alcohol. Protect plants and vegetation from overspray.
6. Spray SIL-ACT® MULTIGARD® treatment on surface to be treated at the desired dispersion rate in water using SIL-ACT® EZ™ Spray Gun or EZ Spray Bar™. Contact your SIL-ACT® representative for details.
7. Apply to saturation. Allow spraying dispersion at low pressure, if necessary follow with broom or squeegee for even distribution.
8. Normal coverage rate is approximately 125 to 200 square feet per gallon of the water-dispersed product. (For use on Illinois DOT projects 100 square feet per gallon.)
9. Clean equipment with SIL-ACT® Equipment Cleaner or 99.99% pure alcohol solvent.
10. Partially used containers should be properly sealed and protected from contamination by water or other foreign substances.

WARRANTY

Limited warranties are available for all SIL-ACT® products. Contact ACT or your local SIL-ACT® representative for details.

SIL-ACT® Multigard® is covered by several patents including U.S. 4,931,319.

NOTICE: This brochure was prepared as an introduction to a product manufactured by Advanced Chemical Technologies, Inc. The information provided herein is based upon typical installation conditions and is believed to be reliable. However, due to the wide variety of possible intervening factors, Advanced Chemical Technologies, Inc. does not warrant the expected results to be obtained. Details concerning product specifications and warranty may be obtained from Advanced Chemical Technologies, Inc. Specifications are subject to change. Sale of subject system is limited to Advanced Chemical Technologies, Inc. and authorized applicator's conditions of sale including those limiting warranties and remedies.

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Technical Binder 2015

