

SIL-ACT® Product Data

ATS-42

Alkyltrialkoxysilane



ADVANCED
CHEMICAL
TECHNOLOGIES, Inc.

"Protecting the World's Infrastructure"

HIGH PERFORMANCE

SIL-ACT® ATS-42 is a clear, penetrating silane treatment which causes concrete, masonry and many natural stones to become repellent to water, chloride, waterborne contaminants and weathering elements, preventing the premature deterioration of parking decks, bridge decks, pavements and other types of concrete and masonry structures. Performance testing makes SIL-ACT® ATS-42 an excellent choice for any project requiring the highest quality clear water repellent.

DURABLE

SIL-ACT® ATS-42 can be applied to the surface by low-pressure spray, brush, roller or squeegee. It can be stored on the jobsite at temperature extremes, eliminating storage problems associated with emulsified silane products that can deteriorate on the jobsite, prior to use, if not properly stored. SIL-ACT® ATS-42 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.

FLEXIBLE

SIL-ACT® ATS-42 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

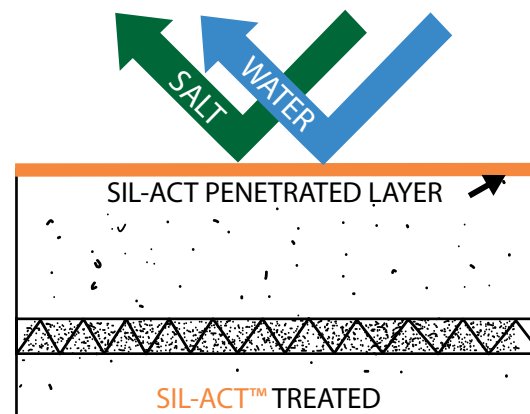
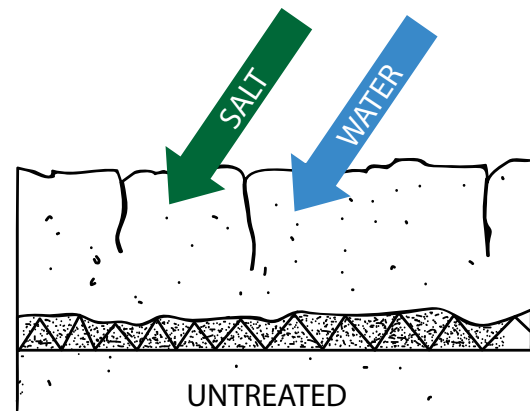
STOPS

WATER

CHLORIDE

WATERBORNE
CONTAMINANTS

PERFORMANCE TESTED!



SIL-ACT®'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	ATS-42
Active Ingredient		Alkyltrialkoxysilane
Specific Gravity	Method 24, ASTM D-5095	~ 0.81
Density		6.76 lb/gal
Active Content		> 40% by weight
VOC Content		< 600 g/L
Surface Appearance after Application		Unchanged
Drying time at 70°F		½ hour
Moisture Absorption Reduction	ASTM C-642-82	0.11% 48 hours 0.40% 50 days
Moisture Vapor Permeability	OHD L-35, ASTM-96, D-1653	100%
Depth of Penetration	OHD L-34 / NCHRP 244 Series II	0.38 in
Waterproofing	Alberta Transp. & Utilities (1b)	86.2%
Waterproofing after Abrasion	Alberta Transp. & Utilities (1b)	87.1%
Alkali Resistance	Alberta Transp. & Utilities (1b)	84.1%
Reduction in Water Weight Gain	NCHRP 244 Series II	91.2% @ 5 days
Reduction in Absorbed Chloride	NCHRP 244 Series II	90.5% @ 5 days
	NCHRP 244 Series IV	90%
Moisture Vapor Permeability	NCHRP 244 Series II	100%
Freeze-Thaw Scaling Resistance	ASTM C-672	0 at 100 cycles
Resistance of Chloride on Penetration (0.5" depth)	AASHTO T 259/T 260	90.6%
Resistance of Chloride on Penetration (1.0" depth)		87.7%

INSTRUCTIONS

- Test a small area prior to general application to ensure compatibility, desired results and coverage rates.
- 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. Water blasting, sandblasting or shotblasting may be required. Please refer to Advanced Chemical Technologies, Inc.'s CleanACT™ line of concrete and masonry detergents and cleaners.
- 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.
- Windows, metals, etc. are not affected by SIL-ACT® ATS-42. No masking of windows required. However avoid unnecessary overspray. If necessary, clean overspray areas with a clean dry cloth, soap and water or alcohol. Protect plants and vegetation from overspray. Prior to SIL-ACT® ATS-42 installation check for preexisting contamination.
- Spray, brush or roll on SIL-ACT® ATS-42 treatment on surface to be treated at the recommended application rate. Contact your Advanced Chemical Technologies rep for spray equipment options.
- Apply to saturation. When spraying at low pressure, if necessary follow with broom or squeegee for even distribution.
- Normal coverage rate is approximately **125 to 250 square feet per gallon**. Coverage rates will vary greatly with the porosity of substrate.
- Clean equipment with SIL-ACT® Equipment Cleaner .
- 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® ATS-42 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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