

Sikagard® 705 L

Silane based reactive water repellent penetrating sealer

Description	<p>Sikagard-705 L is a one part low viscosity, solvent free, reactive penetrating sealer for concrete and cementitious substrates based on silane with ~100% active ingredient. Sikagard-705 L complies with the requirements of NCHRP Report 244 Series II & IV.</p> <p>Sikagard-705 L is classified under the ALBERTA infrastructure and transportation specifications. Sikagard-705 L complies with the highest requirements of EN 1504-2 for hydrophobic Impregnation (penetration depth class II & resistance to freeze-thaw cycles and chloride ion penetration).</p>
Where to Use	<p>Sikagard-705 L is used as water-repellent penetrating sealer (hydrophobic treatment) for absorbent substrates such as</p> <ul style="list-style-type: none">■ Parking decks■ Bridge decks■ Concrete highway surfaces■ Ramps and Barriers■ Cooling Towers■ Stadiums■ Many other traffic bearing/reinforced concrete substrates and structures
Advantages	<ul style="list-style-type: none">■ Excellent penetration (~100% active content)■ Economic and easy to use■ Independent test data available■ Reduces capillary water absorption, protection against driving rain and splashing on vertical areas.■ Reduction of absorption of aggressive or deleterious agents dissolved in water (i.e. de-icing salts or chloride from marine environment)■ Non vapor barrier■ Long term efficiency, deep penetration■ Increases the resistance of concrete to freeze and thaw cycles and de-icing salts■ Low VOC content■ Resistant to sea water■ Ready to use

Typical Data (Material and curing conditions @ 73°F (23°C) and 50% R.H.)

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

Shelf Life	2 years from production date
Storage Conditions	Store in unopened, undamaged and original sealed packaging in dry and cool conditions. Protect from moisture.
Product Conditioning	Condition material between 40°F and 95°F
Sealer Type	Alkylalkoxy Silane
Active Ingredient Content	~100%
VOC	100 g/l
Application Thickness	7 mils
Depth of Penetration - OHD L-34	>10 mm
Flash Point	104°F (40°C)
Alberta DOT Type 1c	
Water Repellance after Heavy Abrasion	85.3%
Alkali Resistance	84.8%
Vapor Transmission	106.9%
NCHRP 244: (125 sq.ft./gal)	
Series II - Absorbed Chloride	88%
Series IV - Absorbed Chloride	98%
Water Absorption - ASTM C642	.06% (24 hrs)/.1% (48 hrs)

Construction



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Scaling Resistance - ASTM C672	None
90 Day Salt Ponding - AASHTO T 259	82.6% (.5-1")

Coverage	Coverage is entirely dependent on the porosity of the substrate. Extremely non-porous substrates may only require 1 coat. To ensure proper penetration depth, a field mock up is recommended ~240 sq.ft/gal
Cure Mechanism	Sikagard-705 L does not require any special curing but must be protected from rain for at least 3 hours at +68°F.
Packaging	5 gal. pail, 55 gal. drum
How to Use	
Surface Preparation	Best results are achieved when Sikagard-705 L is applied on 28 days old concrete – however, due to its high alkali resistance, it is still possible to apply it at a very early age. Best results are achieved on a dry, very absorbent substrate. All surfaces to be sealed must be dry, clean, sound before application. Remove all grease, curing compounds, surface treatments, coatings, oils, etc. Preparation Work: Concrete and masonry surfaces must be prepared using mechanical means (sandblast, shotblast, high pressure water, etc.). Cracks in concrete more than 12 mils must be repaired prior to application of the hydrophobic treatment.
Mixing	Sikagard -705 L is supplied ready to use and must not be diluted.
Application	Sikagard-705 L is applied using a low-pressure spray, brush or roller, in a single pass from bottom up taking care not to let the product run. Apply subsequent coats wet on wet. Avoid ponding on the surface.
Over Painting	Can be overcoated with water and solvent based polymer paint - contact the proposed paint manufacturer for recommendations. Sikagard-705 L can be used as a water repellent primer under many Sikagard protective coatings. Penetration of water is thus prevented at possible weak spots or in the event of damage to the top coat and the risk of consequential damages such as paint flaking can be reduced. Waiting time: minimum 5 hours, maximum 1 week.
Limitations	<ul style="list-style-type: none"> ■ Best results are achieved when Sikagard-705 L is applied on 28 days old concrete – however, due to its high alkali resistance, it is still possible to apply it at a very early age. ■ Areas such as window frames which still need to be painted must be securely covered to avoid contact with Sikagard-705 L. ■ Areas not to be impregnated such as window panes need to be protected from being accidentally contaminated with Sikagard-705 L. ■ Sikagard-705 L can damage some coatings and bituminous products. ■ Sikagard-705 L can lead to darkening of concrete, apply sample areas first. ■ Cannot be overcoated with limewash or cement paint. ■ Refer to the latest Method Statement for detailed information regarding surface preparation, application method, etc.
Caution	WARNING: COMBUSTIBLE, IRRITANT. Contains triethoxy(2,4,4-trimethylpentyl)silane (CAS:35435-21-3) and ethanol (CAS:64-17-5). Keep away from heat, sparks, electrical equipment, and open flame. DO NOT SMOKE. Use only in well ventilated areas. Harmful if inhaled in high concentrations. May cause eye/skin/respiratory tract irritation. May cause gastrointestinal disturbance if swallowed. Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal. WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.
Handling and Storage	Keep away from heat, sparks, sunlight, electrical equipment or flame. VAPORS MAY IGNITE AND EXPLODE. DO NOT SMOKE. Open doors and windows during use. Use adequate local and mechanical ventilation. Wear protective equipment (chemically resistant gloves/goggles/clothing) to prevent direct contact with skin and eyes. Use properly fitted NIOSH vapor cartridge respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing after use. Store product in tightly sealed containers in a cool, dry well ventilated area at temperatures between 40° F and 95°F away from ignition sources. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

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First Aid	Eyes – Hold eyelids apart and flush thoroughly with water for 15 minutes. Skin – Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. Inhalation – Remove to fresh air. Ingestion – Do not induce vomiting. Dilute with water. Contact physician. In all cases contact a physician immediately if symptoms persist.
Clean Up	In case of spill, eliminate all ignition and heat sources, if safe to do so. Ventilate area. Open doors and windows. Wear chemical resistant gloves/goggles/clothing. In absence of proper ventilation use properly fitted NIOSH respirator. Confine spill, collect using noncombustible absorbent material and place in properly sealed container. Dispose of excess product in accordance with applicable local, state and federal regulations.

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