



## Product Data Sheet

# Potassium Silicate Coating/Liquid Silicate

Cathedral Stone Products has developed a Potassium Silicate Coating for use on all masonry (mineral surfaces) and over latex and acrylic coatings. If necessary, dilute the Potassium Silicate Coating with Liquid Silicate to adjust the translucency of the coating. Similar coatings have been used in Europe for over 160 years and are now produced for the first time in North America. Cathedral Stone's Potassium Silicate Coating combines the advantages of silicate/mineral and silicone coatings. Unlike latex and acrylic coatings, Potassium Silicate Coating forms a molecular bond with the masonry substrate.

### **FEATURES AND BENEFITS**

- Bonds to Masonry
- Will never peel
- Color Fast
- Will not burn
- Protects steel reinforcement
- Not affected by freeze/thaw
- Water Repellent
- No VOC's
- 92 perm (elastomeric/acrylic – 7-8)

### **APPLICATION PROCEDURES**

#### **Diluting Potassium Silicate Coating**

Dilute the Potassium Silicate Coating with Liquid Silicate to adjust translucency of the coating.

#### **Surface Preparation**

Potassium Silicate Coating should only be used by experienced users. Potassium Silicate Coating can be applied to any sound masonry or plaster surface. (Do not use on wood, plastic, or apply over oil or gloss coating.) The surface must be clean, solid, dry and free from efflorescence. The surface must be completely dry at the time of application. Potassium Silicate Coating is designed for vertical surfaces only. Horizontal surfaces, especially where water can pool, are not suitable for application. Cracks and spalls must be repaired and cured before coating. Cracks can be filled with Jahn M30 or M40 mortars. To ensure even penetration of the coating, make sure repairs use materials that are compatible to the substrate. Temperature (ambient and substrate) must be at least 45° F (8° C) and below 90° F (32° C). Do not apply when precipitation is expected within 48 hours of application. Do not apply when the temperature is expected to reach the dew point within 24 hours. Protect adjoining surfaces from splashes. Potassium Silicate Coating can only be removed while wet. Once Potassium Silicate Coating dries it CANNOT be removed.

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Notice: The information contained herein is based on our own research and the research of others, and it is provided solely as a service to help users. It is believed to be accurate to the best of our knowledge. However, no guarantee of its accuracy can be made, and it is not intended to serve as the basis for determining this product's suitability in any particular situation. For this reason, purchasers are responsible to make their own tests and assume all risks associated with using this product.



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### **Mixing**

Do not mix Potassium Silicate Coating with water. If CSP Coating needs to be thinned out, add Cathedral Stone's Liquid Silicate until the desired consistency is reached. Mix Potassium Silicate Coating with a drill prior to use. When installing multiple units of coating, be sure to "box-mix". ("Box-mixing" is the blending of coating by pouring alternately between two containers.) This will help alleviate minor color inconsistencies between batches. Substrate absorption definition: The absorption must not be too high or too low for the coating to be applied correctly. Absorption can be tested by applying small amounts of water (drops) on the vertical surface to be coated. • Low absorption can be defined as water laying or beading on the surface of the substrate (masonry must be etched in cases of low absorption). • High absorption can be defined as water being absorbed so quickly that all traces of water seem to disappear rapidly. • Normal absorption can be defined as the water absorbing into the substrate without beading on the surface.

### **APPLICATION**

Protect all areas not to be coated prior to application. Substrate must be completely dry before coating. Do not work when precipitation is expected within 48 hours of installation. The coating needs adequate time to bond to the substrate and moisture disrupts this curing process. Apply liberally and spread well, filling all pores and cracks. Work wet into wet. Potassium Silicate Coating should be applied with a short bristle brush. Brushing increases the absorption of the coating into the masonry, resulting in a longer lasting, more durable coating. Spraying and rolling the coating is possible. Allow the first coat to dry of at least 12 hours. Apply a second coat in the same fashion; work wet into wet.

### **IMPORTANT POINTS**

- Make sure the substrate is completely dry and there is no expected dew
- Protect coatings from all forms of moisture: rain, dew, snow, etc. for 48 hours.
- Temperature must be at least 45°F (8°C)
- Protect any surfaces not to be coated • Do not add water to Potassium Silicate Coating
- Always work wet into wet

### **CLEANUP**

Place tools immediately in clean water when pausing work (15-30 minutes or more). Clean tools with clean water immediately after finishing work. Dried Potassium Silicate Coating is insoluble in water. Potassium Silicate Coating can be removed from non-porous surfaces with clean water while still wet.

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### **SAFETY REQUIREMENTS**

Eye protection should be worn during mixing to protect from splashing. Avoid contact with skin and mucous membranes. Work in well ventilated areas.

### **LIMITATIONS**

Surface temperatures should be 50° to 90° F (10° to 32° C). The product performs effectively at lower temperatures (even at 40° F, 5° C), but the dwell time increases.

### **PACKAGING AND COVERAGE**

Coverage depends on the absorption and structure of the substrate. Determine coverage with a trial application. Normally absorptive, smooth surfaces with two coats: One unit of Cathedral Stone's Potassium Silicate Coating (approx. 5.0 gallons) will cover approx. 1200 sq. ft. for a single coat and approx. 750 sq. ft. when two coats are applied. Coverage rates will generally be higher with darker colored coatings.

### **STORAGE AND SHELF LIFE**

Store in a dry area, away from direct sunlight. Storage conditions should be in the range of 40° 80° F with low to average humidity. Average shelf life is six months in original, unopened packaging.

### **WARNING**

Not for internal consumption. Keep out of the reach of children and animals

**DO NOT ALLOW PRODUCT TO FREEZE!**

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