

# COLORSIL

**PIGMENTED SILICATE SURFACE TREATMENT FOR CONCRETE AND MASONRY** 

## SPECIALTY CONSTRUCTION PRODUCTS



#### DESCRIPTION

ColorSil is an advanced alternative to standard concrete and masonry paints, stains or tintable surface sealers. The unique composition of ColorSil's potassium silicate binder coupled with inorganic pigments and silicone emulsions produce a colored coating virtually unaffected by ultraviolet light and incapable of supporting fungal or bacterial growth.

#### USES

- Interior or exterior, vertical or overhead, concrete and masonry surfaces
- · Protects substrates from long term effects of water, environmental factors and pollution
- Poured in place or precast concrete, concrete block or brick, split face block
- · Fired brick, stucco, cement plaster, architectural facades and wood
- Provide a uniform appearance on restoration projects

#### **A**DVANTAGES

- · Combines the features of chemical hardening and bonding with high water vapor permeability
- · Penetrates deeply into and chemically reacts with substrate for exceptional durability and water repellency
- Improves abrasion resistance and eliminates blistering and peeling caused by entrapped substrate moisture
- Compatible with most corrosion inhibitors applied prior to ColorSil application
- · Compatible with primer silane treatments for improved waterproofing protection
- VOC compliant, environmentally safe
- Cures to a natural matte finish maintaining the aesthetic appearance of the substrate
- Resists aggressive atmospheric conditions, exhaust gases, acid rain, airborne pollutants
- · Inhibits the growth of mildew, fungus and algae

<b>TECHNICAL DATA</b> Federal EPA Regulation 40 CFR Part 59 Complies with VOC Emission Standards for Architectural Coatings, Federal EPA Regulation 40 CFR Part 59	
Solids: 62%	
V.O.C. Content: 0 grams / liter	
Abrasion Resistance Blister Box Method 5,000 hours without evidence of blistering, peeling or loss of adhesion.	
Color Retention Fade-O-Meter (Atlas Model FO-1352LV) 1,000 hours with no change from control	
Weathering Weatherometer (Model XWR-CAM) 5,000 hours with no evidence of degradation	
Water ResistanceASTM D1308500 hours with no effectD1308	
Scrub Resistance ASTM D2486 > 150 cycles to break over cement tiles	
Wind Driven RainFed SpecTT-C- 555B> 150 hours with no effect	
Mildew Resistance ASTM D3273 4 week experience with no mold growth	
CO <sub>2</sub> Diffusion Resistance @ 10 dry mils Engelfried 323,000u - equivalent to 8 inches of concrete	
Freeze / Thaw Resistance 1.5 hours in water - 4.5 hours at 5°F - 2 hours at 50°F 100 cycles with no evidence of degradation	
Fire Hazard ASTM E-84 NFPA Class A Smoke density, fuel contribution & flame spread all under 25	
Moisture Vapor Transmission ASTM D1653 Exceeds minimum 18 perms transmission	
<b>PACKAGING</b> ColorSil is factory tinted and is available in 5 U.S. gallon	

packaged 36 per pallet or 30 U.S. gallon drums packaged 4

per pallet



#### **ESTIMATING GUIDE**

1 U.S. gallon covers150-200 Ft<sup>2</sup>/Coat

1 Liter covers 3.6-5 M<sup>2</sup>/Coat

Note: Coverage rate depends on surface texture and porosity of the substrate

### Colors

ColorSil is available in nine standard colors. Special orders for custom colors or color matching services require minimum quantities and a minimum 10 working days notice prior to shipment. Owner must approve color matches prior to production.

#### DIRECTIONS

SURFACE PREPARATION: Surfaces to be treated must be a minimum of 14 days old. All surfaces to be treated must be clean and free of all dust, dirt, soot, oil, grease, form release agents, curing or sealing compounds, waxes, laitance, efflorescence or other contaminants that would prevent penetration and reaction of the ColorSil. Remove any loose or powdery material. All holes, cracks or deteriorated mortar joints should be repaired prior to application of ColorSil. Typically, power washing with a minimum 1,500 psi pressure is effective at removing most contaminants. Allow surface to complete dry before application of ColorSil. If caulking is required, use an acrylic joint sealant. Incidental metal and wood surfaces must be primed and sealed; metal with a rust inhibiting primer, wood with a high quality primer sealer. Contact ChemMasters for recommendations concerning any special circumstances. A test panel for owner's approval of color and finish is recommended.

For exterior applications, protect landscape plants from drips and splatters. ColorSil is not harmful to plants but will leave a powdery residue on leaves and grass when it dries.

For superior waterproofing protection, an application of Aquanil Plus 40 or Aquanil Plus 100 is recommended prior to ColorSil application. Aquanil Plus 40 is a 40% solids silane treatment and Aquanil Plus 100 is 100% solids. These products will penetrate deeply into the substrate and enhance the water resistance of the system. The application rates for the silanes are typically 100 to 150 square feet per gallon depending on the substrate. Refer to the technical data sheet for these products for further instructions or contact ChemMasters for details. Allow silane to thoroughly dry prior to application of ColorSil.

MIXING: ColorSil is a heavy bodied, single component silicate material, packaged ready-to-use. A mechanical mixer equipped with a jiffler blade or paddle is recommended for stirring.

INITIAL COAT: Dilute first coat with water at a ratio of one quart water to one gallon of ColorSil (0.25 liters water to 1 liter of ColorSil). Stir diluted material until well blended and uniform in color with no streaks.

For best results, apply ColorSil when the ambient temperature is between  $50^{\circ}$  -  $90^{\circ}$ F and the humidity is less than 90% RH. Apply thinned ColorSil with a brush at a rate of 150 Ft<sup>2</sup>/gal (3.6M<sup>2</sup>/L). This initial primer application ensures an optimum depth of penetration and silicification of the substrate. Allow to dry before applying second coat. Dry time is usually 2-4 hours at  $70^{\circ}$ F.

Second Coat: Do not dilute second coat of ColorSil. Apply at a rate of 150 - 200 Ft<sup>2</sup>/gal (3.6 -4  $M^2/L$ ) within 24 hours of primer application using a brush, medium napped roller or airless sprayer.

#### CLEAN UP

Clean tools and equipment with warm soapy water before material hardens.

#### LIMITATIONS

- Do not apply if ambient or surface temperatures are, or are expected to go below 40°F (4°C) within 24 hours of application
- ColorSil is a water-based product and must be protected from freezing.
- Do not apply to frozen or frosted surfaces, or if rain, dew, fog or high humidity is expected within 2 hours of application.
- Do not thin second coat of ColorSil as this effects the color density or hiding power.
- Not recommended for waterproofing below grade exterior walls or for traffic bearing surfaces
- Unsealed metal or iron particles found in brick or block may cause discoloration if not properly sealed

#### STORAGE

Store tightly closed containers between 40°-80°F (4°-27°C). ColorSil is a water based product. Do not allow to freeze. Shelf life is one year from date of manufacture. Mechanically stir material that has been in storage prior to application.

#### CAUTION

May cause skin or eye irritation. Keep out of reach of children. All label directions and MSDS must be fully understood before using this product.

This Product is Formulated and Labeled for Industrial and Commercial Use Only FOR BEST RESULTS AND SAFEST USAGE, USER IS SPECIFICALLY DIRECTED TO CONSULT THE CURRENT MATERIAL SAFETY DATA SHEET AND PACKAGE LABEL FOR THIS PRODUCT

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