Si-COAT® 401WP™

Low VOC Waterproofing Silicone Wall Coating

Technical Data Sheet

KEY FEATURES:

- **Weatherproofing Protection**: Excellent long-term resistance to damage from sunlight or extreme temperature fluctuations, ensures durable waterproofing performance.
- **Elastomeric:** Thin film membrane bridges cracks and accommodates movement due to freeze-thaw cycles up to 1/16 inch.
- **Breathable:** Allows moisture vapor to diffuse through a liquid water barrier membrane.
- **UV Performance:** All colors are formulated with IR reflectant or inorganic pigments and are tested to withstand 5000 hours of accelerated weathering testing (QUV) without chalking or fading.
- **SWRI (Sealant, Waterproofing & Restoration Institute) Approved**
- **High Solids:** Easily applied using brush, roller or airless spray equipment with increased coverage per gallon.
- **Environmentally Responsible:** Low Volatile Organic Compound (VOC) content; Si-COAT 401WP meets the VOC limit set out by California's SCQAMD for a reduced environmental impact.

Si-COAT 401WP is a low VOC, high solids, elastomeric, one-coat waterproofing silicone wall coating suitable for use in above grade applications. The coating cures from as low as 14°F up to 140°F (-10 to 60°C). This architectural coating can be used over masonry such as concrete, concrete block, brick, stone, EIFS, stucco, wood, and previously coated surfaces. It provides excellent weatherproofing protection, flexibility and durability with a long service life.

As a result of its specific chemistry, Si-COAT 401WP forms chemical bonds with the host surface to enhance adhesion properties without the need for priming and extensive site preparation.

The single component, room temperature vulcanizing (RTV) moisture cure polysiloxane technology provides superior performance and durability by allowing internal moisture vapor to diffuse out, and exterior water to be repelled. This unique ability protects surfaces from dampness, weather damage, wind-driven rain and allows drying from within the substrate. Also, due to the hydrophobicity of the coating, the surface can easily be cleaned using water under low pressure.

PRODUCT CHARACTERISTICS AND PRACTICAL INFORMATION

Volume Solids	96%
Typical Thickness Application Rate	10 mils (254 microns) minimum dry film thickness (DFT).
	11 mils (279 microns) wet film thickness (WFT).

Approximate Theoretical Coverage:

DFT	**10 mils (254 µ)**
sq. ft/US gal	154
sq. m/L	3.8

Allow appropriate loss factor:
Practical Coverage = Theoretical Coverage x [100% - Loss%].
Coverage will vary with the substrate and porosity of surface.

Drying Time:

Skin-over Time	30 minutes*
Tack-Free Time	50-55 minutes*
Cure Through	4 to 6 hours*
Full Physical Characteristics	7 days*

*At standard conditions [77°F (25°C) and 50% relative humidity]

REGULATORY DATA

Flash Point	190°F (88°C) minimum
VOC	0.29 lb/US gallon (35 g/liter)

PHYSICAL PROPERTIES

(Typical properties - values not to be used as specifications)

Uncured	
Specific Gravity	1.23
Appearance	Pourable liquid
Viscosity	6,000 ± 1,000 cP
Sag	35 minimum (Leneta Anti-Sag Meter)
Cure System	Neutral, moisture cure
Cured At Standard Conditions* for 7 Days	
Durometer Hardness (ASTM D2240, Shore A)	11 points
Tensile Strength (ASTM D412)	90 psi (6.33 kg/cm^2)
Elongation at Break (ASTM D412)	400%
Tear (ASTM D412)	12 ppi
Temperature Stability	Continuous: -76 to 392°F (-60 to 200°C)
Water Vapor Permeance (ASTM E96) @ 15 mils	9 perms
Resistance to Wind-Driven Rain (ASTM D6904) @ 20 mils	Pass
UV Weathering (ASTM G154)	5,000 hours

*At standard conditions 77°F (25°C) and 50% relative humidity

COLORS

Si-COAT 401WP is available in the following standard stocked colors: ANSI #70 Grey, Dark Grey, Off White (FS 17875), and Middlestone Beige (FS 33531). Other colors are available as well as custom color matching. Please contact CSL Silicones for assistance. Terms and conditions may apply.

SURFACE PREPARATION & CLEANLINESS

All surfaces to be coated should be free of dirt, dust, chalking paint, mortar spatter, old caulking, grease, oil, release agents, curing compounds, laitance and other foreign matter including frost. In order to achieve the above conditions, cleaning the surface with a power washer should be sufficient. Allow the surface to dry completely before applying Si-COAT WP.

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New concrete and similar materials should be cured and dried out for at least 28 days before application of Si-COAT® 401WP™. Fill voids and cracks in masonry surfaces with CSL424 silicone sealant before application of Si-COAT 401WP.

If over coating Si-COAT 401WP, ensure the coating is fully cleaned to remove all surface contamination such as dust, grease, oil, salt crystals, traffic fumes, etc. before application of a further coat of Si-COAT 401WP. In order to achieve a continuous film free of defects, back-rolling may be necessary.

COATING APPLICATION

Mixing: Si-COAT 401WP is supplied as a one-part coating (no component mixing necessary). **Mix by an air powered agitator (300 – 400 rpm) for a minimum of 5 minutes,** to ensure an even consistency of coating is obtained without air in suspension.

Application: All surfaces should be clean and dry prior to application. The coating should be applied in a manner that prevents runs, sags, drips, spills, etc. and that completely covers surfaces.

The temperature of the surface to be coated should be between 14 and 140°F (-10 and 60°C) and environmental temperature should be at least 5°F (3°C) above the dew point prior to and during application.

When working with Si-COAT 401WP in high humidity and/or high temperature environments, it is recommended to use a pail lid adapter fitted with an agitator. This will prevent the product from skinning over and curing in the pail during application.

It is recommended that Si-COAT 401WP be applied using an airless sprayer; however, brush, or roller are also suitable methods of application for small surface areas. It is necessary to apply at a rate that will achieve a minimum of 10 mils (254 µ) DFT. Roller and brush application will require multiple coats to achieve desired DFT even if the coverage is adequate. Surface finish is dependent on application method. Avoid using a combination of application methods whenever possible. Superior aesthetic appearance will be obtained with airless spray application.

Thinner: Not recommended.

Cleaner: Naphtha or Odorless Mineral Spirits.

Work Stoppages & Restarts: Work stoppages are not recommended with only partial utilization of a container of Si-COAT 401WP. If work must stop after only a portion of a container of Si-COAT 401WP is used, seal to minimize air and moisture contact with the coating by covering the surface of the coating with a sheet of polyethylene film, then reseal the container to be airtight.

Upon reopening the container to restart work, peel back the polyethylene film. If curing of the coating has occurred, use a utility knife to cut the cured coating away from the wall of the container. Peel away the cured layer of coating to expose fresh coating underneath.

Clean-up: Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with Si-COAT equipment cleaner, naphtha or mineral spirits.

Fully cured coating is environmentally benign (will not harm) and is suitable for landfill disposal. However, always check local environmental regulations before disposal.

SYSTEMS COMPATIBILITY

Although no primer is needed prior to applying Si-COAT 401WP to most common substrates, it is recommended to do a quick field adhesion test prior to application.

Si-COAT 401WP is compatible with with all CSL neutral cure sealants, liquid flashing and transition strips.

Si-COAT 401WP has excellent tolerance to airborne chemical exposure. When severe chemical or solvent splashing/pooling is likely to occur please contact CSL Silicones Inc. for information regarding suitability.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given in this document. See Safety Data Sheet (SDS) and the container(s).

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards & regulations.

When applying Si-COAT 401WP in confined spaces ensure adequate ventilation and/or respiratory equipment is available. Consult the Si-COAT 401WP SDS for further details.

PACKAGING

Size (unit)	Product Volume	Net Weight	Shipping Weight
1 US gal	1.0 US gal (3.8 L)	10.1 lb (4.6 kg)	10.8 lb (4.9 kg)
5 US gal	5.0 US gal (18.9 L)	51.4 lb (23.3 kg)	55.4 lb (25.1 kg)
50 US gal	50.0 US gal (189 L)	512 lb (233 kg)	549 lb (249 kg)

STORAGE

Shelf Life: 12 months from date of manufacture in the original unopened container below 90°F (32°C). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat or ignition. May be stored below freezing.

CSL is ISO 9001:2008 Registered

SEALANT • WATERPROOFING & RESTORATION INSTITUTE

Issued to: CSL Silicones
Product: Si-COAT® 401 WP

ASTM D 6904: Resistance to Wind Driven Rain
Weight Gain: 2.1 oz. Water Leaks: none
Pass ✔

ASTM D 1653: Moisture Vapor Transmission
WVT (grains/h ft²) 3.2 Perms (grains/ft².h.in.Hg): 8.0
Pass ✔

ASTM D 412: Tensile Properties
Tensile Strength: 127 psi Elongation: 337%
Pass ✔

ASTM C 1305: Cracking Bridging Ability
Results: No cracking
Pass ✔

ASTM D 2697: Solids Content by Volume
Results: 91% Density: 10.2 lbs/gal.
Pass ✔

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WALLCOATINGS VALIDATION
www.swrionline.org

CSL Silicones Inc.
144 Woodlawn Rd. W.
Guelph, ON N1H 1B5
Canada

T +1 519.836.9044
TF + 1 800.265.2753
www.cslsilicones.com

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