

Si-COAT® 422AB™

Fluid-Applied Tri-Functional™ Low VOC 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 (20 mil min) bridges cracks and accommodates movement due to freeze-thaw cycles up to 1/8 inch.

Breathable: Allows moisture vapor to diffuse through a liquid water barrier membrane.

UV Performance: Tested to withstand 5000 hours of accelerated weathering testing (QUV)

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® 422AB™ is a silicone liquid applied, moisture-cure, elastomeric, monolithic, low VOC air barrier designed to protect against air infiltration and water penetration. The coating cures from as low as -18°C up to 60°C. The vapor semi-permeable coating cures to form a flexible membrane that is impervious to water but has the ability to "breathe", allowing water vapor to escape from inside the substrate.

The cured membrane provides long-term protection from air and water infiltration and flexibility to accommodate normal movement imposed by thermal contraction and expansion. There is no exposure limit as the coating provides for a durable, long-term resistance to UV and the elements.

Si-COAT® 422AB™ is designed to be sprayed or rolled over exterior, abovegrade wall assemblies and is typically applied to exterior sheathing boards, concrete block, poured concrete or wood substrates. The coating is low VOC and SCAGMD compliant.

PRODUCT CHARACTERISTICS AND PRACTICAL INFORMATION

Volume Solids	83%
Typical Thickness Application Rate	25 ± 5 mil (508 to 762 microns) dry film thickness (DFT).
	28 - 35 mil (711 to 889 microns) wet film thickness (WFT).

Approximate Theoretical Coverage:

DFT	25 mils (635 µ)
sq. ft/US gal	53
sq. m/L	1.3

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	40 minutes*
Tack-Free Time	80 minutes*
Cure Through	5 hours*
Full Physical Characteristics	7 days*

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

REGULATORY DATA

Flash Point	141.8°F (61°C) minimum
VOC	0.49 lb/US gallon (59 g/L)

PHYSICAL PROPERTIES

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

Uncured	
Specific Gravity	1.16
Appearance	Pourable liquid
Viscosity	4,000 ± 1,000 cP
Sag	35 minimum (Leneta Anti-Sag Meter)
Cure System	RTV silicone, neutral, moisture cure
Cured At Standard Conditions* for 7 Days	
Durometer Hardness (ASTM D2240, Shore A)	14 points
Tensile Strength [ASTM D412]	150 psi (10.5 kg/cm ²)
Elongation at Break [ASTM D412]	450%
Tear [ASTM D412]	16 ppi
Temperature Stability Continuous:	-60 a 200°C (-76 a 392°F)
Water Vapor Permeance (ASTM D1653)	3.3 perms (coated DensGlass)
UV Weathering (ASTM G154)	5,000 hours
Crack Bridging Ability 60 mil @ 1/8 inch (ASTM C1305)	Pass
Crack Bridging Ability 20 mil @ 1/8 inch (ASTM C1305)	Pass
Water Absorption Coefficient	146 mg/m ² ·s ^{1/2} (CCMC requirement: < 4000)
Water Penetration at Fasteners	Pass
Low Temperature Cure Through Time at -18°C	27 h

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

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® 422AB™.

New concrete and similar materials should be cured and dried out for at least 28 days before application of Si-COAT® 422AB™. Fill voids and cracks in masonry surfaces with CSL424 silicone sealant before application of Si-COAT® 422AB™.

If overcoating Si-COAT® 422AB™, 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® 422AB™. In order to achieve a continuous film free of defects, back-rolling may be necessary.

COATING APPLICATION

Mixing: Si-COAT® 422AB™ 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 41 and 140°F (5 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® 422AB™ 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® 422AB™ 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 20 mils (508 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® 422AB™. If work must stop after only a portion of a container of Si-COAT® 422AB™ 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® 422AB™ to most common substrates, it is recommended to do a quick field adhesion test prior to application.

Si-COAT®422AB™ is compatible with with all CSL neutral cure sealants, liquid flashing and transition strips.

Si-COAT®422AB™ 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® 422AB™ in confined spaces ensure adequate ventilation and/or respiratory equipment is available. Consult the Si-COAT® 422AB™ SDS for further details.

PACKAGING

Size (unit)	Product Volume	Net Weight	Shipping Weight
1 US gal	3.8 L (1.0 gal)	4.4 kg (9.7 lb)	4.7kg (10.4 lb)
5 US gal	18.9 L (5.0 gal)	22.0 kg (48.6 lb)	23.8 kg (52.6 lb)

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.

Disclaimer

The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this document without first obtaining written confirmation from CSL Silicones Inc. as to the suitability of the product for the intended purpose does so at his/her own risk. The information contained herein has been prepared in good faith to comply with applicable federal and provincial (state) law(s). However, no warranty of any kind is given or implied and CSL Silicones Inc. will not be responsible for any damages, losses or injuries that may result from the use of any information contained herein. While CSL endeavors to ensure all advice it gives about the product (whether in this document or otherwise) is correct, we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless CSL specifically agrees in writing to do so, it does not accept any liability whatsoever or howsoever arising for the performance of the product, or for any consequential loss or damage arising out of the use of the product. Any warranty, if given or specific Terms & Conditions of Sale are contained in CSL's Terms & Conditions of Sale, a copy of which can be obtained upon request. The information contained herein is liable to modification from time-to-time in light of experience and CSL's policy of continuous product improvement. It is the user's responsibility to check that this document is current prior to using the product. This document must not be used for specification writing.

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