



CIM 500V

HIGH PERFORMANCE COATINGS AND LININGS

OVERVIEW

DESCRIPTION

CIM 500V is a tough, durable, waterproofing coating specifically formulated to achieve a thick layer on vertical surfaces, in one application. CIM 500V meets the demands of waterproofing for buried, non-UV exposed, or below grade applications. This two-component, liquid applied urethane coating adheres to most materials to form a permanent, seamless barrier to water. It is especially well suited for plaza decks, areas with multiple penetrations and curbs, and between-slab waterproofing.

ADVANTAGES

- Cold, liquid applied, high build coating achieving up to 60 mils in one application
- Self-adheres to most materials used in construction
- Easily applies to complex areas including penetrations and curbs
- Complies with the toughest VOC regulations
- Self-flashing; saving time and materials at transitions

SURFACE PREPARATION

GENERAL:	Substrates must be clean and dry with no oil, grease, or loose debris. CIM VOC Compliant Bonding Agent is recommended on all non-porous substrates. Perform adhesion tests to confirm adequacy of surface preparation. See C.I.M. Industries' specific substrate Instruction Guides for more information.
CONCRETE:	ICRI-CSP 4-6 surface profile. The substrate must be clean and dry (see CIM Instruction Guide IG-2), and free of contaminants. Use of CIM epoxy primer is recommended to limit outgassing and maximize adhesion.
STEEL:	SSPC-SP6 / NACE No. 3 Commercial Blast.
OTHER METALS:	SSPC-SP1 solvent clean and abrasive blast to roughen and degloss the surface.
WOOD:	Substrate must be clean, dry, and free of surface contamination. Use of CIM epoxy primer is recommended to limit outgassing and maximize adhesion.
GLASS:	Thoroughly clean. CIM VOC Compliant Bonding Agent must be used for proper adhesion.
PREVIOUS COATINGS AND LININGS:	CIM 500V may be applied over some existing coatings and linings. Perform adhesion tests to confirm adequacy of surface preparation. CIM VOC Compliant Bonding Agent can be used to achieve higher adhesion properties. C.I.M. Industries does not accept responsibility for determining the suitability of an existing coating or lining as a substrate for CIM products. Owner shall perform adhesion tests on any existing coating or lining to determine suitability.
EARTH:	Use CIM Scrim
COLOR	CIM 500V is initially shiny black, turning dull when exposed to direct sunlight.
SOLIDS BY VOLUME	91% mixed (1460 mil x sq ft/gal)
VOC	97 g/l (0.8 lb/gal)
UV EXPOSURE	CIM 500V is not designed for long term UV exposure, exposure should be limited to no longer than 180 days.



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HIGH PERFORMANCE COATINGS AND LININGS

All information presented in this publication is believed to be accurate, but it is not to be construed as a guarantee of minimum performance. Test performance results are obtained in a controlled laboratory environment using procedures that may not represent actual operating environments.

TYPICAL PROPERTIES

Abrasion Resistance			
ASTM D4060			
CS-17 Wheel, 1000 rev	<5 mg loss	Liner Weight (60 mil film)	38.2 lbs./100 sq. ft.
Adhesion to Concrete (dry)		Mix Ratio	
ASTM D7234	>350 psi	Weight	8.5:1
Deflection Temperature (Minimum Use Temperature)		Volume	9.9:1
ASTM D648	below -20°F	Permeability to Water Vapor	
Density		ASTM E96 Procedure B,	
Premix	8.9 lbs./gal	100 mil sheet	0.03 perms
Activator	10.1 lbs./gal	Recovery from 100% extension:	
Mixed & Cured	9.3 lbs./gal	after 5 minutes	>90%
Elastomeric Waterproofing		after 24 hours	>95%
ASTM C836	exceeds all criteria	Service Temperature	-20°F to 180°F
ASTM C957	exceeds all criteria	Softening Point, Ring & Ball	
Extension to Break		ASTM D36	>275°F
ASTM D412	200%	Tear Strength	
Hardness, Shore A		ASTM D624 (Die C)	140 lbs./in.
ASTM D2240	70	Tensile Strength	
Liner Performance Crack Bridging		ASTM D412 (Die B)	700 psi
10 cycles @ -15°F	greater than $\frac{1}{8}$ "		
After heat aging	greater than $\frac{1}{4}$ "		



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GENERAL APPLICATION INFORMATION

FOR PROFESSIONAL USE ONLY.

PRECAUTIONS	Avoid contamination with water or moisture. Keep all pails and jugs tightly closed until ready for use. All equipment, air supplies, and application substrates must be ABSOLUTELY DRY . Do not apply in wet weather or when the CIM 500V or substrate may become wet within 6 hours after application. Use caution when applying CIM 500V in confined spaces. See C.I.M. Industries' Instruction Guide, "Applying CIM Within Confined Spaces" (IG-9).
TEMPERATURE	Surface should be at least 50°F (10°C) and must be 5°F (3°C) above the dew point. DO NOT APPLY WHEN THE SUBSTRATE OR AMBIENT TEMPERATURE IS RISING OR THE APPLIED COATING IS IN DIRECT SUNLIGHT. CIM 500V should be at least 50°F (10°C) when mixed and applied. CIM 500V may be preheated to facilitate application at low temperatures however working time will be reduced. See C.I.M. Industries' Instruction Guide "Applying CIM Coatings in Cold Weather" (IG-11).
EQUIPMENT	Suitable for application with a roller, brush, trowel, or spray equipment. Spray equipment requires large diameter hose and air supplied mastic gun. Airless pump may be used to provide fluid side pressure. See "Spray Application of CIM Coatings" (IG-12) or contact C.I.M. Industries for specific recommendations.
WORKING TIME	Working time depends on temperature and method of application, typically 35-45 minutes. Working time for spray application requirements will be significantly shorter.
PRIMING	Porous substrates such as wood and concrete may be primed with CIM epoxy primer to minimize outgassing. CIM 500V must be applied within 48 hours of primer application. See the epoxy primer technical data sheet for additional information.
MIXING	DO NOT THIN. DO NOT HAND MIX. Begin mixing each pail of CIM 500V Premix using a power mixer (e.g., 1/2" drill and an eight-inch mud mixer). Do not draw air into the mix. The premix and activator are packaged and supplied in the proper mix ratio. Failure to mix CIM 500V as provided will result in off-ratio or uncured coating. While mixing, slowly add one full jug of CIM 500V Activator to one full pail of CIM 500V Premix. Mix thoroughly for 3 FULL MINUTES. Mixing Jigs and Timers are available from C.I.M. Industries to help eliminate mixing errors and increase productivity on the job. See C.I.M. Industries' Instruction Guide, "Mixing CIM Premix and Activator" (IG-8).
APPLICATION	Apply CIM 500V directly to a clean and dry substrate, or to properly primed substrate. For horizontal surfaces, use of CIM 500 is recommended. See C.I.M. Industries' specific substrate Instruction Guide for additional information.
RECOATING	CIM 500V should be recoated as soon as practical, typically within 2 hours from mixing. If the coating has cured longer than this, the surface must be severely abraded using surface grinder or other mechanical means. The surface must be made free of dust and debris and then use CIM VOC Compliant Bonding Agent before applying the CIM 500V.
RECOMMENDED MINIMUM THICKNESS	The recommended minimum thickness of the coating is 60 wet mils. Contact C.I.M. Industries for additional information. Refer to CIM 500V Coverage Chart for coverage rates.
CURING TIME	Typically, CIM 500V can be placed in service within 24-48 hours. Contact C.I.M. Industries for specific recommendations.
CLEAN-UP	Use mineral spirits for clean-up of uncured material. Spray equipment must be flushed regularly during application to prevent material from setting up in the hose and pump. Cured material is very difficult to remove. Soaking in solvent will soften the material and may assist in its removal.



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WARNING	Flammable. Use only in well ventilated areas. Do not store or use near open flame, sparks or hot surfaces. Keep tightly closed. Avoid contact with moisture or water. Keep out of reach of children.		
SAFETY INFORMATION	Adequate health and safety precautions should be observed during storage, handling, application and curing. Refer to C.I.M. Industries' Safety Data Sheets for further details regarding the safe use of this product.		
PACKAGING	CIM 500V is available in 4.7-gallon ready to mix kits. Each kit consists of a container of premix and a smaller container of activator. The kits are supplied in the proper mix ratios with sufficient room in the premix container to facilitate adequate mixing.		
SHIPPING		Premix	Activator
	Weights		
	4.7 gallon kit	37 lb/pail	4.4 lb/jug (27 lb/case of 6)
	Properties		
	Flash Point	101°F	>400°F
	Shipping Class	Not Regulated*	Not Regulated
STORAGE	Temperature	20°F to 110°F	70°F to 95°F
	Shelf Life	2 years	18 months
	NFPA	Class II	Class III B

* CIM 500V Premix can be shipped as Not Regulated for most ground shipments, see the SDS for other shipping classifications and guidelines.

WARRANTY & LIMITATION OF SELLER'S LIABILITY

CIM warrants as follows: (1) that for a period of five (5) years from the date of shipment to the initial purchaser the Membrane Products, when mixed in prescribed ratios and for the prescribed length of time, (a) will not become brittle or crack and (b) will provide a water barrier and (2) that the Membrane Products will, at the time of manufacture, conform to CIM's current quality standards. Notice in writing, of water leakage or other potential claim or breach under this warranty, must be provided to CIM within seven (7) days of the claimed leakage, claim or breach.

If CIM determines, at its sole discretion, that a breach of warranty has occurred, CIM's sole responsibility shall be repayment of the purchase price of the non-conforming Membrane Product or, at CIM's option, resupply of conforming Membrane Product to replace the non-conforming Membrane Product. No warranty shall apply to any Membrane Product subjected to misuse, improper installation, repair alteration, neglect, accident, abnormal conditions of operation, or use in any manner contrary to instructions

EXCEPT FOR THE EXPRESS WARRANTIES CONTAINED IN THIS WARRANTY CIM MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) CONCERNING ITS MEMBRANE PRODUCTS. IN NO EVENT SHALL CIM BE LIABLE OR OBLIGATED IN ANY MANNER FOR ANY SPECIAL, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES OF ANY KIND (INCLUDING WITHOUT LIMITATION LOST PROFITS) REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT PRODUCT LIABILITY, OR OTHERWISE.

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CONTACT C.I.M. INDUSTRIES FOR CURRENT INFORMATION. FOR PROFESSIONAL USE ONLY.



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