

CIM 1000 Trowel Grade

HIGH PERFORMANCE COATINGS AND LININGS

OVERVIEW

DESCRIPTION CIM 1000 Trowel Grade is a tough, liquid applied, two component, chemical and corrosion resistant urethane elastomeric coating, chemically thickened to allow trowel applications with minimum sag. CIM 1000 Trowel Grade is designed for use with all CIM materials. CIM 1000 Trowel Grade can be used as a crack filler or for application to vertical surfaces and corner flashings. CIM 1000 Trowel Grade offers the same advantages as CIM 1000 and is approved for contact with potable water in accordance with ANSI/NSF 61. CIM 1000 Trowel Grade may be applied at thicknesses up to 250 mils on vertical surfaces in one coat.

ADVANTAGES CIM 1000 Trowel Grade offers exceptional waterproofing performance in a formulation modified to allow a thicker vertical film build:

- Ideal for coating concrete.
- ANSI/NSF 61 certified for potable water contact up to 180°F.
- Forms a tough elastomeric coating able to bridge cracks and fill joints.
- Tested to ANSI 118.10-199, “Standard Specification for Load Bearing, Bonded, Waterproof Membrane for Thin-Set Ceramic Tile and Dimension Stone Installation”.
- Chemically thickened for application to vertical surfaces, cold joints, cant strips and cracks.
- Used for repairs or for forming flashings and seals around pipes and roof penetrations.
- Can be applied to complex tanks with multiple penetrations, sumps, and irregular shapes.
- Adheres to and bridges between common construction materials such as concrete, steel, glass, wood, and most coatings.
- Environmentally sound, complying with the toughest VOC standards.
- Can be repaired when damaged or when new penetrations are added.
- Excellent wear and abrasion service.
- UV stable.
- Available in easy to use dual cartridges.

SURFACE PREPARATION

GENERAL: Substrates must be **clean and dry** with no oils, grease or loose debris. CIM 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 Guide for specific guidelines.

CONCRETE: ICRI-CSP 4-6 surface profile exposing aggregate. Concrete must exhibit minimum 3,000 psi compressive strength and be free of release agents and curing compounds. The substrate must be clean and dry (see CIM Instruction Guide IG-2), and free of contaminants.

STEEL: Minimum 3 mil profile.
Immersion service – SSPC-SP10 / NACE No. 2 Near White Blast.
Non-Immersion service – SSPC-SP6 / NACE No. 3 Commercial Blast.
Use CIM Bonding Agent for greater adhesion.

OTHER METALS: SSPC-SP1 solvent clean and abrasive blast to roughen and degloss the surface. Use CIM Bonding Agent for greater adhesion.

GLASS: Thoroughly clean. CIM Bonding Agent must be used for increased adhesion. For immersion service roughen the surface.

WOOD: Substrate must be clean, dry and free of surface contamination.

PREVIOUS COATINGS AND LININGS: CIM 1000 Trowel Grade may be applied over some existing coatings and linings and achieve acceptable performance. CIM Bonding Agent is recommended for greater adhesion. Finished system results vary due to a variety of project specific factors, including the service conditions to which the system is exposed. Therefore, C.I.M. Industries does not accept responsibility for determining the suitability of an existing coating and 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. Must be plural component spray applied.

COLOR CIM 1000 Trowel Grade is initially shiny black, turning dull over 3 to 6 months when exposed to direct sunlight. For a colored or reflecting surface finish, see C.I.M Industries’ Instruction Guide, “Topcoats” (IG-7) for further instructions.

SOLIDS BY VOLUME 89%

VOC 88 g/l (0.74 lb./gal.). CIM 1000 Trowel Grade complies with the toughest VOC regulations.



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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

<p>Abrasion Resistance–Wt. Loss, Taber Abraser CS–17 Wheel 1000 gr./1000 rev. ASTM D4060</p>	<p>1.2 mg. Loss</p>	<p>Liner Weight (60 mils wet film thickness)</p>	<p>31 lbs./100 sq. ft.</p>
<p>Adhesion to Concrete (dry) Elcometer</p>	<p>350 psi</p>	<p>Mix Ratio Weight Volume</p>	<p>6.1:1 7.7:1</p>
<p>Deflection Temperature ASTM D648</p>	<p>below -60°F</p>	<p>Mullen Burst Strength ASTM D751, 50 mil</p>	<p>150 psi</p>
<p>Density (Approx.) Premix Activator Mixed & Cured</p>	<p>7.9 lbs./gal. 10.1 lbs./gal. 8.3 lbs./gal.</p>	<p>Permeability to Water Vapor ASTM E96 Method E, 100°F, 100 mil sheet</p>	<p>0.03 perms</p>
<p>Elastomeric Waterproofing ASTM C836 ASTM C957</p>	<p>exceeds all criteria exceeds all criteria</p>	<p>Potable Water Service ANSI/NSF 61 to 180°F UL File Number - MH17445 WQA Certified</p>	
<p>Extension to Break ASTM D412</p>	<p>300%</p>	<p>Recovery from 100% extension after 5 minutes after 24 hours</p>	<p>98% 100%</p>
<p>Flooring and Shower Lining UPC/IBC ANSI 118.10</p>	<p>Pass</p>	<p>Salt Spray ASTM B117</p>	<p>pass 2000 hrs.</p>
<p>Green Roof Membrane/Root Barrier FLL, 2002</p>	<p>Pass</p>	<p>Service Temperature</p>	<p>-60°F to 220°F</p>
<p>Flammability ASTM D2859 UL790</p>	<p>pass/combustible substrate Class A¹</p>	<p>Softening Point, Ring & Ball ASTM D36</p>	<p>>325°F</p>
<p>Hardness, Shore A ASTM D2240 @ 77°F</p>	<p>60</p>	<p>Tear Strength ASTM D624 (Die C)</p>	<p>150 lbs./in.</p>
<p>Jet Fuel Resistance FS SS-S-200D</p>	<p>pass for joints</p>	<p>Tensile Strength ASTM D412, 100 mil sheet</p>	<p>800 psi</p>
<p>Liner Performance Crack Bridging 10 cycles @ -15°F After heat aging</p>	<p>greater than 1/8" greater than 1/4"</p>	<p>Weathering ASTM D822</p>	<p>pass 5000 hrs.</p>

¹Contact C.I.M. Industries for details regarding UL fire ratings

CHEMICAL RESISTANCE

CIM 1000 Trowel Grade is resistant to a broad range of acids and alkalis. Consult C.I.M. Industries for additional information regarding chemical resistance after reviewing CIM 1000 Chemical Resistance Chart.

THE INFORMATION PRESENTED IN THIS PUBLICATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

CONTACT C.I.M. INDUSTRIES FOR CURRENT INFORMATION.

www.cimindustries.com

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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 rain is imminent or when the CIM 1000 Trowel Grade or the substrate may become wet within 4 hours after coating. Use caution when applying CIM 1000 Trowel Grade 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 COATING IS IN DIRECT SUNLIGHT. CIM 1000 Trowel Grade should be at least 60°F (15°C) when mixed and applied. CIM 1000 Trowel Grade may be preheated to facilitate application at low temperatures, but working time will be reduced. See C.I.M. Industries' Instruction Guide "Applying CIM Coatings in Cold Weather" (IG-11).
EQUIPMENT	CIM 1000 Trowel Grade is best applied with trowel or brush. CIM 1000 Trowel Grade will not self level. CIM 1000 Trowel Grade may be sprayed with a properly configured plural component spray system. See C.I.M. Industries' Instruction Guide, "Spray Application of CIM" (IG-12) or contact C.I.M. Industries for suggested equipment configuration.
POT LIFE	Less than 20 minutes. Working time depends on temperature and method of application.
PRIMING	Porous substrates such as wood and concrete may be primed with CIM 61BG Epoxy Primer to minimize outgassing. The maximum recoat window for CIM 61BG Epoxy Primer is 48 hours. See CIM 61BG Epoxy Primer Technical Data Sheet for additional information. Perform adhesion tests to confirm adequacy of adhesion to primer.
MIXING	DO NOT THIN. DO NOT HAND MIX. Begin mixing each pail (4.0 gal.) of CIM 1000 Trowel Grade Premix using a power mixer (e.g. ½" drill and an eight inch mud mixer.) Do not draw air into the mix. While mixing, slowly add one jug (0.5 gal.) of CIM 1000 Activator to the pail and mix thoroughly for 3 FULL MINUTES . The proportions are pre-measured. DO NOT ESTIMATE. Do not use CIM Mixing Jigs when mixing CIM 1000 Trowel Grade. See C.I.M. Industries' Instruction Guide, "Mixing CIM Premix and Activator" (IG-8).
APPLICATION	CIM 1000 Trowel Grade can be applied at 60 mils in one coat. For thicker applications, mixed material should be allowed to build viscosity for several minutes before attempting to apply. See C.I.M. Industries' specific substrate Instruction Guide for additional guidelines.
RECOATING	CIM 1000 Trowel Grade may be recoated in 1 hour and must be recoated soon after the coating no longer comes off on polyethylene (typically within 4 hours of mixing.) If the coating has cured longer than this time, the surface must be severely abraded using surface grinder or other mechanical means, and be free of dust and debris. Apply CIM Bonding Agent no more than 1 hour prior to recoating. Apply all coats within the recoat window except at joint lines. Contact C.I.M. Industries for recoat window when using CIM 1000 Trowel Grade on cant strips and expansion joints.
RECOMMENDED MINIMUM THICKNESS	Recommended minimum thickness of the coating is 60 wet mils. Additional thickness may be specified, but extended time is required to insure proper solvent release prior to placing the liner in potable water service. Contact C.I.M. Industries for additional information. Refer to CIM 1000 coverage chart for coverage rates.
CURING TIME	Before placing the coating into potable water service or similar applications, allow sufficient time for solvents to release from the coating. The required time for a 60 wet mil coating is two weeks at 60°F (15°C) and varies depending upon liner thickness and substrate temperature. For many other applications, CIM 1000 Trowel Grade may be placed into service in 24 hours. Contact C.I.M. Industries for specific recommendations.
DISINFECTION	CIM 1000 Trowel Grade coating must be washed, rinsed, and disinfected in accordance with C.I.M. Industries Instruction Guide "Decontamination or Washing Procedures for Potable Water Tank and Fish Pond Service" (IG-10).
CLEAN-UP	Use mineral spirits for clean-up of uncured material. Cured material is very difficult to remove. Soaking in solvent will soften the material and may assist in its removal.

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SHIPPING, STORAGE AND SAFETY DATA

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 This product contains petroleum asphalt, petroleum distillates, amine compounds and/or other chemical ingredients. Adequate health and safety precautions should be observed during the storage, handling, application and curing. Refer to C.I.M. Industries' Material Safety Data Sheets for further details regarding the safe use of this product.

PACKAGING CIM 1000 Trowel Grade is available in mixed kits of 0.8 gallon and 4.5 gallons. Each unit consists of a container of premix and a smaller container of activator. Quantities have been premeasured to provide the proper mixing ratio, leaving sufficient room in the premix container to facilitate adequate mixing. **Do not estimate proportions.** CIM 1000 Trowel Grade is also available in 52.5 gal drums and dual cartridges.

SHIPPING	Premix	Activator
Weights		
0.8 gallon kits	6.6 lb/can(26 lb/box of 4)	1 lb/jug (13 lb/box of 12)
4.5 gallon units	36 lb/pail	5.5 lb/jug (33 lb/box of 6)
Dual Cartridges	2.5 lb/cartridge (29 lb/box of 12)	
Static Mixers	6 lb/box (48/box)	
TG premix drums	470 lb/drum (52.5 gal/drum)	
Properties		
Flash Point	101°F	>400°F
Shipping Name	Coating Solution	Not Regulated
DOT Class	Class 3, UN1139, PG III	Not Regulated

STORAGE		
Temperature	101°F	70°F to 95°F
Shelf Life	2 years	6 months
NFPA	Class II	Class III B
¹ 4.5 gallon units of CIM 1000 Trowel Grade use CIM 1000 Activator.		

WARRANTY & LIMITATION OF SELLER'S LIABILITY

C.I.M. Industries Inc. (C.I.M.) warrants that for a period of five (5) years from the date of shipment to the initial purchaser the products, when mixed in proper ratios for the proper length of time, (a) will not become brittle or crack and (b) will provide a water barrier. Due to application variables beyond C.I.M.'s control which may affect results, C.I.M. makes no warranty of any kind, expressed or implied, including that of merchantability, other than that the products conform to C.I.M.'s current quality control standards at time of manufacture. If breach of warranty is established, the buyer's exclusive remedy shall be repayment of the purchase price of the non-conforming CIM membrane product or, at C.I.M.'s option, resupply of conforming product to replace the non-conforming product. The buyer expressly waives any claim to additional damages, including consequential damages.

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