C.I.M. Industries Inc.

CIM 1000 Trowel Grade

COATING PROFILE

DESCRIPTION CIM 1000 Trowel Grade is a tough, liquid applied, two component, chemical and corrosion resistant urethane elastomer coating, chemically thickened to allow trowel applications with minimum sag. 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.

ADVANTAGES CIM 1000 Trowel Grade offers exceptional waterproofing performance in a formulation modified to allow for vertical or free form trowel application:

- ANSI/NSF 61 certified for potable water contact up to 180°F.
- Forms a tough elastomeric liner able to bridge cracks and fill joints.
- 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.

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 contaminates.

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 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 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%

RECOMMENDED COVERAGE Recommended minimum thickness at all points of the coating is 60 wet mils. Higher coverages 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.

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

Abrasion Resistance–Wt. Loss, Taber Abraser CS–17 Wheel 1000 gr./1000 rev. ASTM D4060	1.2 mg. Loss
Adhesion to Concrete (dry) Elcometer	350 psi
Deflection Temperature ASTM D648	below -60°F
Density (Approx.)	
Premix	7.9 lbs./gal.
Activator	10.1 lbs./gal.
Mixed & Cured	8.3 lbs./gal.
Elastomeric Waterproofing	
ASTM C836	exceeds all criteria
ASTM C957	exceeds all criteria
Extension to Break ASTM D412	300%
Flammability	
ASTM D2859	pass/combustible substrate
UL790	Class A[1]
Hardness, Shore A ASTM D2240 @ 77°F	60
Jet Fuel Resistance FS SS-S-200D	pass for joints
Liner Performance	
Crack Bridging	
10 cycles @ -15°F	greater than ⅛"
After heat aging	greater than ¼"
Membrane Weight (60 mils wet film thickness)	31 lbs./100 sq. ft.
Mix Ratio	
Weight	6.1:1
Volume	7.7:1
Mullen Burst Strength ASTM D751, 50 mil	150 psi
Permeability to Water Vapor ASTM E96 Method E, 100°F, 100 mil sheet	0.03 perms
Potable Water Service ANSI/NSF 61 Approved	to 180°F
Recovery from 100% extension	
after 5 minutes	98%
after 24 hours	100%
Salt Spray ASTM B117	pass 2000 hrs.
Service Temperature	-60°F to 220°F
Softening Point, Ring & Ball ASTM D36	>325°F
Tear Strength ASTM D624 (Die C)	150 lbs./in.
Tensile Strength ASTM D412, 100 mil sheet	800 psi
Weathering ASTM D822	pass 5000 hrs.

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.

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

www.cimindustries.com

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COMMERCIAL INDUSTRIAL MEMBRANE

GENERAL APPLICATION INFORMATION

USE **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 50ºF (10ºC) and must be 5ºF (3ºC) 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 60ºF (15ºC) 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 Membranes in Cold Weather" (IG–11).

EQUIPMENT CIM 1000 Trowel Grade is best applied by trowel or brush. CIM 1000 Trowel Grade will not self level.

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 recoat window for CIM 61BG Epoxy Primer shall be no longer than 48 hours. See CIM 61BG Epoxy Primer Coating Profile 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.** CIM Timers from C.I.M. Industries help eliminate mixing errors and increase productivity on the job. 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 Apply CIM 1000 Trowel Grade directly to a clean and dry substrate. 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 liner 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. Use CIM Bonding Agent for better adhesion. For immersion conditions, all coats shall be applied within four hours of each other, except at joint lines. For applications, such as cant strips and expansion joints, where adhesion of subsequent CIM coats is undesirable, allow 12 hours for CIM 1000 Trowel Grade to cure prior to recoating or, alternatively, use a bond breaker.

CURING TIME Before placing the liner into potable water service or similar applications, allow sufficient time for solvents to release from the liner. The required time for a 60 wet mil liner is two weeks at 60ºF (15ºC) and varies depending upon liner thickness and substrate temperature. Contact C.I.M. Industries for details. 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 liner 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.

CONTACT C.I.M. INDUSTRIES FOR SPECIFIC RECOMMENDATIONS AND INSTRUCTION GUIDES.
www.cimindustries.com

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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 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.**

SHIPPING	**Premix**	**Activator**
Weights		
0.8 gallon kits	6.6 lbs. per can (26 lbs. per box of 4)	1 lb. per bottle (13 lbs. per carton of 12)
4.5 gallon units	36 lbs. per pail	5.5 lbs. per jug (33 lbs. per carton of 6)[1]
Properties		
Flash Point	101°F	> 250°F
Shipping Name	Coating Solution	Not Regulated
DOT Class	Class 3, UN1139, PG III	Not Regulated
STORAGE		
Temperature	20°F to 110°F	70°F to 95°F
Shelf Life	2 years	6 months
NFPA	Class II	Non Flammable

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

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