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CIM IG-1
07/10

Instruction Guide APPLICATION OF CIM TO ASPHALT

1.0 DESCRIPTION

This guide covers the installation of CIM coatings and linings (CIM) over a sound, properly prepared asphalt base. The CIM shall consist of a minimum of 55 dry mils (see CIM Technical Data Sheet and appropriate coverage chart) applied by spray, squeegee, roller, or trowel. Actual coverage rates may differ from theoretical rates depending on surface profile and application method.

CIM has been successfully applied over asphalt in applications such as parking decks, lagoons, roofing, airport runways, and helipads. The CIM high abrasion resistance and strength allow rubber tired vehicles to be driven over the coating.

2.0 MATERIALS

2.1 CIM Premix & Activator

2.2 Optional Materials

2.2a. CIM 1000 Trowel Grade Premix & Activator

2.2b. CIM Bonding Agent

2.2c. CIM Scrim

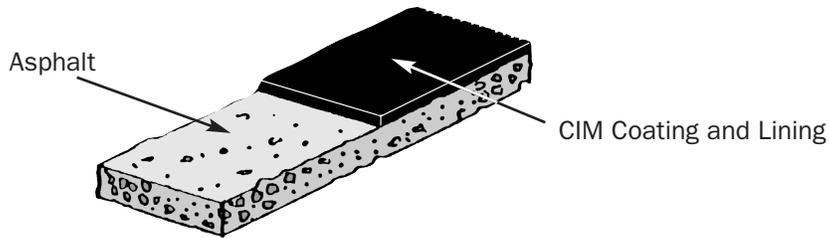
3.0 SAFE PRACTICES

Use equipment and procedures designed to minimize danger to personnel and materials. Special attention should be made to provide adequate ventilation and respirators for personnel applying CIM in confined spaces or operating spray equipment. See C.I.M. Industries' Instruction Guides, "Applying CIM Within Confined Spaces" (IG-9) and "Spray Application of CIM" (IG-12) for more detailed information.

4.0 SURFACE PREPARATION

All areas adjacent to those being coated with CIM which are not intended to be coated should be protected with suitable temporary splash covers such as polyethylene, masking tape, or carpenters paper. CIM shall be applied on a clean, dry, structurally sound base. Asphalt shall only be coated while it is in a temperature declining mode (usually late afternoon).¹

¹**Note:** If areas are not completely clean and dry, CIM will achieve poor adhesion to the asphalt base and blisters may form over time.



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4.1 New Asphalt

New asphalt shall be cured a minimum of 21 days prior to the application of CIM. Oil and grease spots shall be thoroughly cleaned.

4.2 Old Asphalt

Old asphalt shall be dry and free of all dirt and loose aggregate. Oil and grease spots shall be thoroughly cleaned. If previous coatings have been applied, the surface shall be lightly abraded and a test patch of CIM shall be applied to test for acceptable adhesion.

5.0 APPLICATION

5.1 Cracks in Asphalt (all applications)

Cracks less than $\frac{1}{16}$ " wide typically do not require special treatment. All cracks $\frac{1}{16}$ " to $\frac{1}{8}$ " wide shall be stripe coated and filled with CIM prior to the application of the CIM coating. Vertical and sloped walls require the use of CIM 1000 Trowel Grade to fill cracks. If cracks are more than $\frac{1}{8}$ " wide or experience movement, refer to manufacturer for patch/fill details. Proper joint design shall be used. CIM Scrim may be used to reinforce cracks and joints. See section 5.4 for further details. Asphalt cracks require a full 60 mil application of CIM centered a minimum of 6 inches over the filled crack.

5.2 Penetrations

Penetrations must be coated with CIM 1000 Trowel Grade at all horizontal to vertical transitions. CIM 1000 Trowel Grade should be applied at least 60 wet mils thick, 2" onto and 2" beyond the penetration. Please see section 5.8 for application procedures for multiple coats. If work stoppage is unavoidable see sections 5.9 and 5.10.

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CIM will adhere to most clean construction materials. When coating substrates other than asphalt, please see the C.I.M. Industries' specific substrate Instruction Guide for detailed information of application procedures.

5.3 Sharp Edges

CIM 1000 Trowel Grade may be used on sharp edges to prevent thin spots from occurring. The entire area should be coated with the specified thickness of CIM within 4 hours after troweling sharp edges. Do not allow CIM 1000 Trowel Grade to cure more than four (4) hours at 70°F before coating with additional applications of CIM. If work stoppage is unavoidable see sections 5.9 and 5.10.

5.4 Using CIM Scrim

CIM Scrim may also be used on sharp edges to prevent thin spots from occurring. After the substrate is properly prepared apply a thin tack coat, 10–20 mils, of CIM. Push scrim evenly into tack coat and allow to cure for 1–4 hours. Apply 60 wet mils of CIM directly over scrim. CIM Scrim acts as a coverage gauge to help insure thickness.

5.5 Cant Strips

Cant strips should be made with CIM 1000 Trowel Grade Cartridges wherever horizontal surfaces meet vertical surfaces. This is crucial in applications such as tanks which experience wall movement when filled, and where asphalt shifts due to expansion and contraction. Cant strips are generally $\frac{1}{2}$ " or more wide by $\frac{1}{2}$ " or more tall. Allow the cant to cure for a minimum of 12 hours at 70°F. Contact C.I.M. Industries for specific design details.

5.6 Horizontal Surfaces

CIM should be applied to asphalt at a minimum wet film thickness of 60 mils. Rough asphaltic surfaces will require additional coating to achieve minimum wet film thickness. This can be achieved in a single coat on horizontal surfaces.

5.7 Vertical and Sloped Surfaces

CIM can be applied to a vertical or sloped surface with a roller, brush or spray equipment. Small walls are often coated with rollers or brushes. Large walls should be sprayed using an air assisted airless spray system or plural component spray system. See C.I.M. Industries' Instruction

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Guide, “Spray Application of CIM” (IG-12) or contact C.I.M. Industries for suggested equipment configurations. When working with CIM, vertical or sloped surfaces require a minimum of two (2) applications of approximately 30 mils each to obtain the required thickness. If a coating thickness of more than approximately 60 mils is specified on a vertical or sloped surface, additional passes will be required to achieve desired thickness.

5.8 Multiple Coats

Second/multiple coats can be applied as soon as the previous coat can be touched lightly without coming off on your finger. For CIM at 70°F, the tack free time is typically one (1) hour but no longer than four (4) hours after the previous coat has been applied. Higher temperatures speed up the curing time, and tack free time, therefore significantly shortening the 1–4 hour recoat window. Colder temperatures have the opposite effect. As soon as the coating or lining becomes tack free, the second coat should be applied. For immersion or traffic service, apply all coats within the recoat window, except at joint lines.

If it is necessary to walk on the first coat of CIM in order to apply multiple coats, such as when coating a parking or pedestrian deck, polyethylene boots may be worn to prevent sticking to the coating.

5.9 Recoating After the Recoat Window

If second/multiple coats cannot be applied within the recoat window (1–4 hours under standard conditions), the previous coat must be abraded. Abrading shall be performed by surface grinder or other mechanical means. The CIM must be solvent wiped (MEK or xylene) to clean up any loose debris. After the solvent flashes off, a light mist of CIM Bonding Agent must be applied. Allow the CIM Bonding Agent to flash off and recoat within one (1) hour. For immersion or traffic service, minimize areas to be recoated outside the recoat window. Severely abrade the areas to be recoated and test recoated areas for acceptable adhesion. Acceptable adhesion may only be achieved through aggressive abrading.

5.10 Overlap at Joints

Should rain or other conditions require work stoppage, prepare for joint

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lines. Joint lines shall be clean and straight. The overlap shall be a minimum of 6" to insure an impervious joint. All areas to be coated where more than a four (4) hour cure has taken place shall be treated per section 5.9, "Recoating After the Recoat Window."

6.0 TOPPINGS

The CIM may include toppings of aggregate, decorative coatings, protective coatings, or combinations of the above. See C.I.M. Industries' Instruction Guide, "Topcoats" (IG-7) for more detailed information.

7.0 GENERAL LIMITATIONS

Applying CIM under any of the following conditions is likely to result in poor or unsatisfactory performance:

- Use of improper mixing equipment. See C.I.M. Industries' Instruction Guide "Mixing CIM Premix and Activator" (IG-8).
- Material temperature at the time of application is below 60°F.
- Use of standard application procedures when substrate temperature is below 50°F. See C.I.M. Industries' Instruction Guide "Applying CIM Coatings in Cold Weather" (IG-11).
- Substrate moisture is present or rain is imminent.
- Substrate temperature is less than 5°F above the dew point.
- Substrate is in a temperature-rising mode or exposed to direct sunlight.
- Other conditions which are obviously unsuitable.