

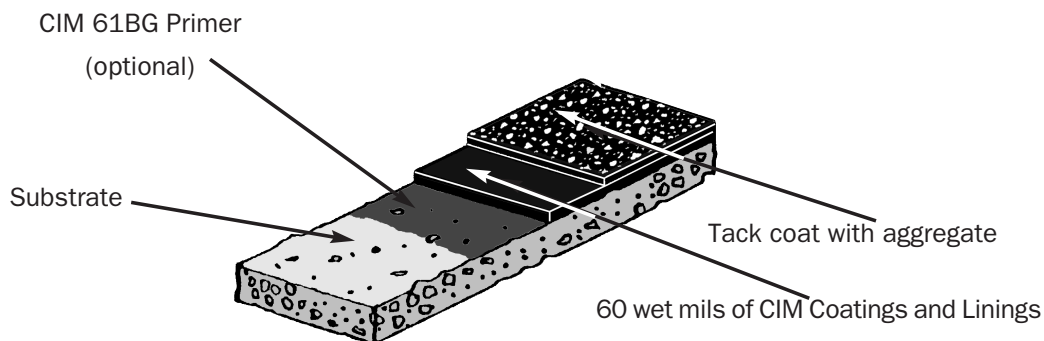
## Instruction Guide TOPCOATS

Topcoats over CIM coatings and linings (CIM) are used for a variety of reasons. Topcoats can be used to offer additional chemical or UV protection, create non-skid surfaces, add color and to create a rough surface to enhance the bond of other coatings or toppings. There are two different types of topcoats to put over CIM: aggregates and coatings.

### 1.0 AGGREGATES

There are many reasons for using an aggregate on top of CIM.

1. Protection:
  - Provides a class A fire rating at 400 lbs./square on roof decks.
  - Lowers deck temperature, which reduces air conditioning loads and extends the life of the CIM.
2. Non-skid surfaces:
  - For foot traffic.
  - For automotive and other traffic.
  - Exit areas for pond or containment area sloped surfaces.
3. Color:
  - Lighter colored aggregate will reflect solar energy, whereas CIM will absorb heat. White aggregate can reduce the CIM temperature by as much as 70°F on a hot summer day.
  - Black is not always the desired color on certain applications, such as roofs or decks.
4. Provide a rough surface to enhance the bond of other coatings and toppings (asphalt, concrete, tile application).
  - For compliance with CIM ANSI 118.10 Approval such as plaza deck, balcony and shower pan lining applications.



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**NOTES:**

### **1.1 What Kind of Aggregate To Use**

In all cases, the aggregate must be kiln dried, bagged material that is absolutely dry. No wet, damp or used material should be used. The aggregate size depends upon use. Typical examples are:

#### *Vertical and Sloped Surfaces*

- Fine and light aggregate (60 mesh or smaller)

#### *Roofs*

- Roofing granules up to a  $\frac{1}{4}$  inch
- 20/30 Boiler Slag (Black Beauty)
- Play sand

#### *Decks*

- 30/60 Boiler Slag for parking decks
- Finer aggregate may be used for pedestrian decks

### **1.2 Application of Aggregate Topcoat**

Aggregate should never be broadcast into the initial base coat of CIM. It should always be broadcast into a tack coat of CIM, which is applied over the base layer according to the steps listed below:

1. Apply bassetta of CIM (60-65 wet mils minimum).
2. Approximately 2–4 hours after applying the base layer of CIM (as soon as the liner becomes tack free) apply a tack coat of CIM. Tack coat thickness will range from 10 wet mils for fine aggregates to 20 wet mils for 20/30 mesh aggregates. Aggregates as large as  $\frac{1}{4}$  of an inch may require up to a 120 wet mil tack coat. The size of the aggregate will determine the thickness of the tack coat.
3. **IMMEDIATELY** broadcast dry, clean aggregate into tack coat until refusal. Application rates vary with the depth of the tack coat and size of the aggregate but generally fall into the range of 0.5 to 1.5 pounds per square foot. A Class A fire rating will require 4 lbs./square foot (400 lbs./square).
4. Allow the completed system to cure a minimum of 24 hours at 70°F. After the elapsed cure time, sweep off and dispose of any excess aggregate (do not reuse aggregate).
5. Wait 72 hours before exposing to vehicular traffic.
6. Prior to installing overburden, perform water test to assure the coating is watertight.

**NOTES:**

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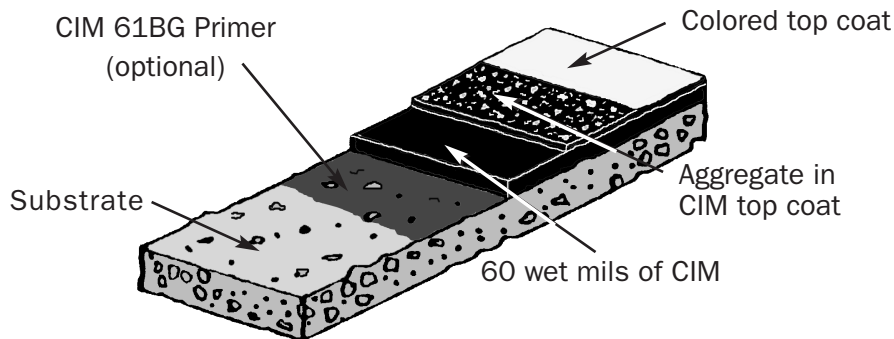
## 2.0 COATINGS

There are also topcoats that can be applied over CIM coatings if a different or specific color is desired. They may also be used for chemical resistance.

Coatings should be tested for asphaltic bleed through and adhesion when used over CIM coatings. Using aggregate will typically increase adhesion. All coatings over CIM shall be considered maintenance coatings.

### 2.1 Aliphatic Urethanes

Aliphatic urethanes may be used as a decorative topcoat where gloss retention and UV stability are important. Test patches should be applied to check for asphaltic bleed through and adhesion. Aliphatic urethanes are generally not recommended for immersion service.



### 2.2 Novolac and Other Epoxies

Novolac and other epoxies can be used as a topcoat to provide additional chemical resistance. Epoxies are generally brittle and will crack in time. Applying an aggregate layer between the CIM and epoxy will typically increase adhesion and reduce cracking.

## 3.0 GENERAL LIMITATIONS

In all applications it is important to know the type of environment to which the coating will be exposed including temperature, traffic load/abrasion, UV exposure, and chemical exposures. Not all systems work in all environments. Test patches should be performed when applying topcoats.

