

Elastomeric Reflective Roof Coatings Application

Frequently asked Questions

Cleaning of Roof Surface

Not applicable to existing elastomeric roof coatings or other water based liquid applied systems

Power Wash

Before power washing, crap and clean the roof surface.

Step 1. Start by removing all loose coatings all brittle patching materials, soft and active cements. Any area with excessive rust should be cleaned with a wired brush. If heavy debris or loose dirt exists broom the surface.

Step 2. Now you are ready to power wash using the selected cleaner, (a water solution of Potassium Hydroxide and 2-Butoxyethanol or a water solution of Trisodium phosphate and bleach are mostly used).

Before starting any roof cleaning works it is highly recommended to perform a small area test in order to identify the ideal mix proportions and to avoid any damage of the existing roofing material. PRIOR TO USE OF ANY KIND OF CLEANING AGENTS OR READY-MADE MATERIALS, READ ALL APPROPRIATE MATERIAL SAFETY DATA SHEETS AND SPECIAL NOTES, WARNINGS AND PRECAUTIONS FOR A PROPER AND SAFE USE. MAKE SURE THAT NEITHER SPLASHES NOR RESIDUES WILL COME IN CONTACT WITH CRITICAL SURFACES.

- **DO NOT APPLY ANY KIND OF CLEANING AGENT ON A ROOF IF THERE IS ANY POSSIBILITY FOR THE MATERIAL TO ESCAPE INTO BUILDING INTERIOR.**
- **DO NOT APPLY ANY KIND OF CLEANING AGENT ON ROOFS PREVIOUSLY COATED WITH ELASTOMERIC COATINGS FOR PURPOSES OF KEEPING OR IMPROVING ROOF'S REFLECTIVITY PERFORMANCE. NORMAL PROCEDURE FOR CLEANING AN ALREADY APPLIED ELASTOMERIC COATING (UNDER STANDARD ROOF MAINTENANCE WORKS) DEALS WITH THE USE OF A WATER SOLUTION WITH MILD SOAP.**

APPLICATION EQUIPMENT

Power washing normally should be accomplished by utilizing a minimum 2000 psi power wash unit. Excessively soiled or greasy surfaces may require additional cleaning or scrubbing with a brush.

Step 3. CLEANER should not be allowed to dry on the roof surface.

Step 4. Rinse roof thoroughly with clean water. For a roof without gutters remember to wet the side of the building first to prevent cleaning runoff from discoloring the exterior walls. After completing the power washing visually inspect the exterior walls and rinse as needed.

CLEAN UP

Upon completion of the application, tools, hoses and equipment must be flushed and cleaned immediately with water.



Coatings Adhesion Tests

Performing an adhesion test is rather a simple process.



Prior to bidding a project, Abolin Co strongly recommends testing for adhesion to existing roof surfaces if the finish/coating is not known. Some finishes and some coatings such as silicone are surfaces to which the acrylic elastomeric products do not adhere well. When the surface material is not known, Abolin Co recommends performing an adhesion test to determine if the elastomeric reflective products can adhere sufficiently to the cleaned existing surface.



The product having direct contact should be the product used primary in the adhesion test. For example: If the surface is a painted metal and the primer is to be applied first, then the primer should be the product used to perform the first adhesion test. If the intent is to just recoat the surface with one of the Abolin Co TOP COAT & FINISH coatings then that coating should be used for the adhesion test.



The rule of thumb is “when in doubt, perform an adhesion test.”

Step 1. Apply the Cleaner, thorough clean, rinse and dry a small area of the roof surface.

Step 2. Apply the product which will be applied on roof surface.

Step 3. Apply one coat approximately 5 centimeters wide and embed a 2,5 centimeters by 12 centimeters strip of cloth fabric into the applied product. Allow 5 centimeters of the fabric to protrude out of the product.

Step 4. Apply a second coat of the product to seal the fabric. Allow the test area to cure for 24-72 hours, before attempting to remove the fabric.

Step 5. Pull the fabric straight up and observe the product



a) If the product peels of the roof surface with little or no effort it is doubtful that the product will adhere properly.

b) When in doubt as to the outcome to the adhesion test, contact Abolin Co technical department for further support.



Checking Mil Thickness

Use a Wet Film Gauge that is easy to use and gauge applied coating thickness from 1 to 80 mils.

1. Pick one of the four sides of the gauge (selecting the side with the desired mil thickness) and place it vertically on the roof into the wet coating.
2. Lift up the gauge and look at the bottom notches. The notch showing wet coating that is also located just before the notch without wet coating will be the correct wet film thickness reading.
3. If all the notches have wet coating, wipe off the gauge and turn the gauge to the next higher mil side.
4. When finished, thoroughly wipe off the gauge, then store for your next wet film reading.

The “Percent Solids-Wet Mil-Dry Mil Chart” is an example how to verify application rates either during installation using the Wet Film Gauge or after installation using a Dry Film Thickness Gauge. To ensure proper application rates follow these instructions:

During Application – using Wet Film Gauge

Review application specifications to determine required application rate per coat.

Note: On non-magnetic surfaces, the only non-destructive way to check coverage rates is by using the Wet Film Gauge during application of each coat.

After Application – using Dry Film Gauge

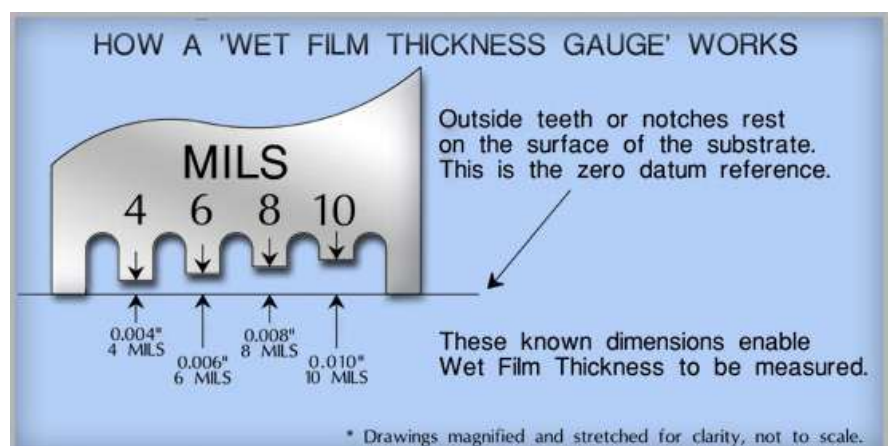
1. Review application specifications to determine required application rate for all coats including primers and finish coats (gallons per 100 square feet).
2. Refer to far left column in “Percent Solids – Wet Mil – Dry Mil Chart” and find specified application rate for each coat. If more finish coats are required, add coverage rates of each coat together.
3. Refer to Product Data Sheet and Physical Properties Chart to determine Percent Solids by Volume.
4. Add dry film thicknesses for primer and finish coats together to get total dry film thickness needed to meet specified application rates.
5. Use Dry Film Gauge to measure thicknesses of coating system.
6. Take multiple readings throughout the roof to create an average value.

Note: Dry Film Thickness Gauges only work on magnetic surfaces.

COVERAGE RATES DISCLAIMER

Published coverage rates are based upon applying the products on clean, smooth, non-porous surfaces.

Actual coverage rates may vary due to substrate conditions (deck profiles or surface texture), spillage, overspray, unused material left in opened containers and even the type of roller or brush used. **To minimize this potential problem, an area should be laid out and coated at the recommended coverage rate using the intended equipment and checked when cured for actual dry film thickness (DFT).**



Problem Reference Guide

Loose or missing fasteners on a metal roof ?

Solution: Cool Barrier Flashing Grade

Highly flexible, heavy bodied acrylic sealant brush, roll or extrude

Step 1 – Power wash with CLEANER

[Repair existing roof system]

Step 2 – Remove loose fasteners

Step 3 – Replace with oversize fasteners

Step 4 – Encapsulate fasteners with Cool Barrier Flashing Grade



Leaking ductwork?

Solution: Cool Barrier Flashing Grade

Highly flexible, heavy bodied acrylic sealant brush, roll or extrude
5 to 8 meters per liter.

Step 1 – Power wash with CLEANER

Step 2 – Completely seal leaking areas with Flashing Grade

Step 3 – Embed polyester mat and coat over with Flashing Grade
(coat several inches of penetrations & roof panel)



Leaking penetration?

Solution: Cool Barrier Flashing Grade

Highly flexible, heavy bodied acrylic sealant brush or roll
5 to 8 meters per liter.

Step 1 – Power wash with CLEANER

Step 2 – Encapsulate penetrations with Flashing Grade

(Coat several inches up sides of penetrations & onto roof panel)



Weathered skylight?

Solution: Cool Barrier Protecta Clear

Highly flexible, milky white in pail, dries to clear, flexible film.
Brush, roll or spray.

Step 1 – Power wash with CLEANER

[Repair holes, damaged areas and remove old caulk]

Step 2 – Seal outer panel edges with Flashing Grade

Step 3 - Apply Cool Barrier Protecta Clear
(1 liter per 6 sq.)



Periodic ponded water?

Solution: Cool Barrier Protecta

Areas where ponded water remains more than 48 hours may require the installation of new drains to provide proper drainage or tapered insulation and new, compatible roofing materials to create positive drainage to the existing drain system.

Prep & Top Coat Steps – See coat system steps

[Repair existing roof system]

Finish Step – Apply A-320 to periodic ponded water area, (1 liter per 8 sq.)



Maintenance of Elastomeric Coatings Roofing System

1. Thoroughly inspect roofs at least twice a year, preferably before the winter rainy season and soon after the rainy season has ended. Remove all debris, ensure that drains are open and functioning, repair small defects and mechanical abuse areas, and identify other membrane conditions that might need more extensive repairs.
2. Reinforce repair areas with polyester fabric and Acrylic sealant and/or Cool Barrier Roof coating. Topcoat all repair areas with Cool Barrier Roof coating. Where appropriate a finish protective layer with Cool Barrier Protecta Clear can also be used for extra protection.
3. Cut out any blisters or delaminated coating, clean the exposed and surrounding area thoroughly, then apply fabric and Acrylic sealant and/or Cool Barrier Roof and a final top coating of Cool Barrier Roof/ Cool Barrier Protecta Clear.
4. In newly developed or found areas of deck deflection and ponded water, consider cleaning the coating and applying additional reinforcing fabric and coating to provide resistance against standing water.
5. Carefully inspect junctures at wall and equipment base flashings and pipe penetrations. Appropriately reinforce with fabric and Acrylic sealant and/or Cool Barrier Roof. Let dry and topcoat with Cool Barrier Roof/ Cool Barrier Protecta Clear.
6. As coating system approaches 5 years old, assess roof condition. As needed, schedule thorough roof cleaning, a full recoat with Cool Barrier Roof, and incorporation of additional localized or full-roof fabric reinforcement.
7. Consider an annual pressure washing of the roof membrane to maintain optimum solar reflectivity. Remove and kill any microbial growth by incorporating a dilute bleach solution into the pressure wash cleaning. Before any pressure washing and/or cleaner solution use, schedule a testing control in a small area of the roof in order to determine precisely the needed pressure levels, the suitability of the cleaner and the general rules for a typical roof cleaning method.

