



07560
RE-COAT



SPECIFICATION for RE-COATING EXISTING ACRYLIC COATED ROOF SYSTEMS

PART 1: GENERAL

- 1.01 SCOPE:** Re-coat the existing acrylic coated roof surface to reduce cooling costs and extend the useful service life of the roof membrane through the application of a highly reflective roof coating.
- 1.02 SYSTEM DESCRIPTION:** This specification includes surface preparation and application of the **MEGAFLEX™ High Performance Cool Roof Coating System**. The reflective Cool Roof finish coat shall be an **ENERGY STAR® Qualified Roof Product** exceeding **ENERGY STAR®** minimum Solar Reflectance standards and a **Cool Roof Rating Council (CRRC) Rated Product** with the following minimum properties: Initial Solar Reflectance of 80%; Initial Thermal Emittance of .80.
- 1.03 REFERENCES:** **ASTM D 6083** Standard Specification for Liquid Applied Acrylic Coating Used in Roofing; Annual Book of ASTM Standards Section 4, Volume 04.04, Roofing, Waterproofing and Bituminous Materials.
- 1.04 SUBMITTALS:**
- A. Product Information:** Submit product technical data and application instruction for each type of material listed in "PART 2: PRODUCT".
 - B. Samples:** Submit sample of each product and material safety data sheet as required.
- 1.05 QUALITY ASSURANCE:**
- A. Codes and Regulations:** Apply material in accordance with all applicable building codes and regulations and industry safety regulations.
 - B. Installer Qualifications:** Installer shall have a minimum two years roofing experience, necessary equipment for application and be a MEGA Approved Contractor.
- 1.06 DELIVERY AND STORAGE:** Deliver clearly labeled materials to the job in the manufacturer's original unopened container. Store the material in a dry location between the temperatures of 50⁰ F and 80⁰ F.
- 1.07 PROJECT/SITE CONDITIONS:**
- A. General:** Not for use on loose-laid, battened or ballasted EPDM systems as membrane fluttering will delaminate the coating. Not for use on graveled, or previously graveled asphalt built-up or coal tar roof systems.
 - B. Weather:** Do not commence installation if rain is expected within twenty-four (24) hours of application.
 - C. Curing Properties:** **MegaFLEX™** is a rapidly polymerized UV (ultra-violet) radiant curing material. Ensure a minimum of four (4) hours of daylight exist after completion of daily application to allow for proper curing. Allow for extended cure time in cool weather, overcast days and days of high humidity. Coating work should best commence in the morning hours to allow for proper curing.
 - D. Cold Weather:** Do not apply if ambient temperature is below, or will fall below, 50⁰ F before curing is complete.
 - E. Hot Weather:** Do not apply if ambient temperature exceed 100⁰ F or surface temperature exceeds 110⁰ F as premature drying or skinning over may occur.

PART 2: PRODUCTS

2.01 All materials used in the coating system shall be furnished by MEGA Industries Corporation, Phoenix, AZ.

2.02 MATERIALS:

A. **MegaFLEX™ M-100 Cool Roof White Reflective Elastomeric Roof Coating**

A High Performance, water-based, 100% acrylic co-polymer resin product utilizing proprietary H.E.A.T. (**Hydrophobic Elastomeric Adhesion Technology**) to ensure the highest degree of adhesion and water resistance. **M-100 Cool Roof White Coating** is an **ENERGY STAR® Qualified Roof Product**. For physical properties refer to the Mega Product Data..



B. **MegaFLEX™ M-700 Gray Base**

A low viscosity material, which provides improved bond strength of the coatings to the existing acrylic coated roof surface by filling microscopic surface irregularities and imperfections. For physical properties refer to the Mega Product Data

PART 3: EXECUTION

3.01 EQUIPMENT:

A. Spray Grade Products:

1. **MegaFLEX™** M-100 **Cool Roof** White Reflective Elastomeric Roof Coating
2. **MegaFLEX™** M-200 Base

	<u>M-100/M-200</u>	<u>M-700</u>
Airless Spray Pump (psi):	2,000 - 3,000	2,000 - 3,000
Gallons per Minute:	1 to 2 GPM	1 GPM
Filter:	30 to 60 mesh	30 to 60 mesh
Tip Size (Reversible/Self Cleaning):	.027" - .039"	.015" - .025"
Tip Fan Angle:	Wide angle	Wide angle
Hose:	3/8" – 1/2" I.D.	3/8" – 1/2" I.D.

NOTE: A 3/4" nap roller may also be used to apply the above products. Do not brush apply as brush marks promote dirt pick-up.

B. Other Products/Materials:

1. 2,000 to 3,000 psi power pressure washer with oscillating tip.
2. Water source

3.02: PRE-APPLICATION INSPECTION

Prior to re-coating application, inspect the existing acrylic coated surfaces for the following:

- A. Problem Areas:** Locate and mark all leaks, wet roof insulation, blisters, damaged surfaces, etc., including, but not limited to; splits, cracks, holes, fish mouths, open seams, open flashings, stretched flashings, etc. Trapped moisture will create blisters beneath the roof membrane, or coating, and result in coating delamination and premature failure.
- B. Existing Coating Adhesion:** Check the existing acrylic roof coating for proper adhesion. Being careful not to cut the membrane, cut a 2" square crosshatch (#) in the existing coating. Firmly apply masking tape to this area, then pull the masking tape straight up at a 90° angle. If the center square or the edges of the crosshatch peel, the existing coating must be removed

prior to re-coating. The adhesion test should be conducted once in each 20 square (2,000 sf) roof section and more frequently if the existing coating adhesion is suspect.

- c. **Slope:** Ensure the roof has a positive slope to drain.
- d. **Standing Water:** Locate and mark all areas which pond water in excess of 48 hours.
- e. **Foreign Materials:** *MegaFLEX™* products will not adhere to certain materials, such as, silicone and ceramic coatings. For questionable existing coating surfaces, install a test patch of primer and coating. Then, perform the adhesion test, described in 3.02.B above, to determine acceptable adhesion. Or contact MEGA Industries Corp. for recommendations.

3.03: SURFACE PREPARATION

- A. **System Moisture:** Remove and replace all wet roof insulation. Replace these areas with dry materials of the same type utilizing the same deck fastening or adhesion method. Ensure these areas are level with the existing roof surface to avoid ponding water.
- B. **Damaged Roof Membrane Surfaces:** Repair all damaged membrane surfaces and flashing details per the original membrane manufacturers' recommendations and instructions. Ensure the repaired area is fully adhered to the substrate beneath. Do not use solvent-based roof cements or coatings as a repair medium.
- C. **Open Seams:** Inspect all modified bitumen membranes for loose or open seams.
- D. **Seam Repair:** Repair all loose or open seams per the original membrane manufacturers' recommendations and instructions.
- E. **Standing Water:** Take corrective action in all areas where ponding water exists in excess of 48 hours. "Corrective action" includes the elimination of standing water with the use of crickets, additional drains and/or other acceptable corrective procedures.
- F. **Pressure Wash:** All existing acrylic coated surfaces to be re-coated must be pressure washed. A minimum working pressure of 2,000 psi is required taking care not to remove the existing, well adhered acrylic coating. Use a mild detergent, chlorine bleach and warm water mixture to remove all dust, dirt, debris, oils, mildew, algae, etc. which will prevent or inhibit proper primer and coating adhesion. Additional cleaning may be required in areas containing heavy dirt or ponding water. For best results in removing loose or poorly adhered existing acrylic coating, use an oscillating tip and a working pressure of 3,000 psi. **Caution:** Use extreme care when pressure washing to ensure the surface membrane is not torn or penetrated by the high-pressure stream. Rinse surface thoroughly with clean water and allow to dry before proceeding.
- G. **Base Application:**
 - 1. Optional, when re-coating over an existing, well adhered acrylic roof coating.
 - 2. Required in areas where; a) the existing acrylic coating is removed down to the roof membrane surface, and/or b) the roof membrane surface has been repaired. To promote adhesion, apply M-700 Base at the rate of 1.0 gallons per square (100 sf). Allow primer to dry a minimum of 4 hours prior to application of the coating.

3.04 APPLICATION

- A. Inspect the entire membrane surface prior to the re-coating application. Remove any debris that will inhibit adhesion of the coating.
- B. Apply *MegaFLEX™ M-100 Cool Roof White Reflective Elastomeric Coating* as the finish coat at a rate of 1.0 gallon per square (100 sf). Allow the finish coat to dry for 24 hours and inspect roof surface area, and seam or lap edges, for flaws and insufficient coating thickness, etc. Take corrective action by applying additional coating to these areas.
- C. **Clean Up:** Clean all brushes and equipment with soap and water solution at the end of each day and when changing products.

- D. **Maintenance:** The reflective coating should be cleaned every two years with a low pressure power washer to maintain maximum reflectivity and cooling cost savings.

Energy savings from installation of an ENERGY STAR® Roof Product are climate specific and vary by building. The greatest savings will occur in buildings located in hot and sunny climates that have a high roof surface to building volume ratio, and lower levels of attic and/or roof insulation.

MEGA Industries Corporation is an ENERGY STAR® Roof Products Partner and a Charter Member of the COOL ROOF RATING COUNCIL.



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