



## Pond Armor™

### SAFE HANDLING INFORMATION PRECAUTIONS:

**1. Thoroughly read MSDS for product** It is important to note that Section 13 of the MSDS titled "Disposal Considerations" discusses spills of undiluted Metacrylics EPDM RINSE. These undiluted spills are different from the rinsate referred to below in the technical notes. The rinsate is defined in these notes as the roof washings composed of diluted Metacrylics EPDM RINSE that result from the proper use of the product according to the application guidelines. In general, during the pressure washing of a roof, one part of Metacrylics EPDM RINSE is diluted with 300 parts of water.

**2. Ensure proper drainage:**

METACRYLICS advocates the use of prudent judgment regarding the release of roof rinsate containing EPDM roof primer Metacrylics EPDM RINSE into the environment. Based on aquatic toxicity data, EPDM RINSE is classified as of LOW CONCERN to aquatic invertebrates and fish, according to the USEPA TSCA classification criteria, i.e., the LC/EC50 > 100 mg/L. Specific for RP-2, the results indicate that the lethal or effective (functional) concentration affecting 50% of the tested population is greater than 220 mg/L of RP-2 for fish, and aquatic invertebrates. RP-2 is classified as of moderate concern to algae according to USEPA TSCA classification criteria, i.e. the LC/EC50 is between 1 mg/L and 100 mg/L. Dilution of the primer with rinsate and subsequent added dilutionary capacity of receiving streams, rivers or ponds would likely buffer any potential for adverse effects.

Because of the low toxicity of the formulation to fish, aquatic invertebrates and algae it is unlikely that releases of the diluted RP-2 material into a storm sewer will cause adverse impact to exposed organisms. The numbers and diversity of organisms in these non-natural systems are anticipated to be low. Increased dilutionary capacity of any receiving water body will serve to further mitigate any potential for adverse effects. Without detailed plans regarding the receiving water course at the site in question, caution should be exercised. Release of rinsate into pristine or near pristine water courses should be avoided.

*Note that compliance with local regulatory ordinances regarding releases of the rinsate into the aquatic or soil compartments should be ensured prior to any disposal operation.*

### NOTICES

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use of our products are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale. Suggestions for uses of our products or the inclusion of descriptive material from patents and the citation of specific patents in this publication should not be understood as recommending the use of our products in violation of any patent or as permission or license to use any patents of the METACRYLICS.

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## SPECIFICATIONS

**DESCRIPTION** Roof Pretreatment for Elastomeric Roof Coatings Metacrylics EPDM RINSE is a rinseable primer technology for elastomeric roof coatings. Metacrylics EPDM RINSE is a low viscosity sprayable liquid used to pre-treat a black EPDM rubber roof membrane prior to power washing and application of the roof coating. EPDM RINSE is designed for use with Metacrylics Acrylic or Silicone coating products. EPDM RINSE improves coatings adhesion to an EPDM rubber membrane. EPDM RINSE has enhanced features which are listed below.

### KEY FEATURES

- Improves coating adhesion to black EPDM rubber membrane
- Neutral pH
- APEO-free surfactants (APEO is Alkyl Phenol EthOxylate)

### BENEFITS

- Longer roof protection with continuous coating film
- More user-friendly, not corrosive, doesn't require special handling needs

**APPEARANCE** Clear Liquid

**COLOR** Pink to Purple

**ODOR** Mild

**PH** 6-7

**SPECIFIC GRAVITY (g/cc)** 1.01

**DENSITY, WET (lbs/gal)** 8.46

**SOLUBILITY IN WATER** Completely Soluble

## PERFORMANCE DATA

### ROOF TRIAL EXPOSURE

Building 48 Roof Adhesion Pulls After 7 Months Exposure.



fiMetacrylics White coating @ 20 dry mil thickness with embedded scrim  
 fiPower washed with water only  
 fiAdhesive Failure



Metacrylics EPDM RINSE treatment/  
 power washed with water (clean & rinse)  
 fiCohesive Failure and Fabric Delamination

## LABORATORY DATA WET ADHESION PERFORMANCE OF METACRYLICS ROOF COATING ON BLACK EPDM RUBBER<sup>1</sup>

### SURFACE TREATMENT

**PRESSURE WASH With H<sub>2</sub>O**

**EPDM RINSE Followed By PW With H<sub>2</sub>O**

fiNew EPDM<sup>2</sup>, pli 0.4

1.2

fiAged EPDM<sup>3</sup>, pli 0.5

1.4

<sup>1</sup> Test Method C794, 2 coat application to achieve 18-20 dry mil film thickness (minimum)

<sup>2</sup> Samples were conditioned for 14 days at 23°C and 50%RH then soaked in tap water for 7 days before testing (Test Method C794).

<sup>3</sup> Measurements were taken after an accelerated dry time. Samples were conditioned for 3 days at 23°C and 50%RH, 2 days in a 50°C oven, 2 days at 23°C and 50%RH, then soaked in tap water for 7 days before testing.

### GUIDELINES FOR LABORATORY EVALUATION Rinseable Primer Application

1. Secure EPDM rubber membrane to a flat surface, such as plywood, with the side to be tested facing up. The membrane needs to be secure enough so that it will not flutter while undergoing the power washing step.

2. Apply the Metacrylics EPDM RINSE to the EPDM at a spread rate of 500 ft<sup>2</sup>/gallon. This may be accomplished with any convenient method including the use of a spray bottle or simply pouring and spreading rinseable primer with a brush.
3. Allow Metacrylics EPDM RINSE to remain on surface for a minimum of 20 minutes. RP-2 can remain on the surface for up to 2 hours.
4. Clean the EPDM rubber membrane with a commercial power washer (between 2000-3500 psi) and water. When cleaning the EPDM, it should be done slowly and close to surface in order to remove mica and inorganic release agents. Failure to use a power washer will result in poor adhesion.
5. Rinse thoroughly with power washer. The rinse step may be done at a faster pace than the cleaning step. The final rinse water should be clear with no soap bubbles present.
6. Allow the EPDM surface to dry before applying the coating. No visible dampness or wet spots should be evident.
7. The substrate is now ready for coating for peel adhesion and blister resistance testing.

### 180° PEEL ADHESION TEST

1. Prepare two test samples with each cleaning treatment by bonding 3-x6" pieces of Metacrylics EPDM RINSE treated EPDM as well as an untreated or water power washed EPDM membrane (used as a control) to rigid substrates such as plywood or aluminum sheet.
2. Apply the test coating in accordance with ASTM C794 to the treated and untreated EPDM membranes. Use enough coating to achieve an 18-20 dry mil film thickness in one coating application. Each test sample should have two 1" wide strips of embedded fabric in the coating so that the test can be carried out in duplicate.
  - a. Apply approximately 25-35% of the coating to the EPDM
  - b. Smear approximately 6" of one piece of fabric with coating and force the coating through both sides of the fabric
  - c. Lay the impregnated fabric over the coated EPDM and lightly brush the top of the fabric in order to push out trapped air bubbles
  - d. Repeat steps b and c for second fabric strip
  - e. After both fabric strips are embedded in the coated EPDM, apply remaining coating quantity to achieve an 18-20 dry mil film thickness
3. Cure the adhesion samples for 14 days at 75°F and 50% relative humidity.
4. After 14 days, make four cuts with a sharp blade lengthwise along the edges of the fabric in order to separate a 1" coating-covered fabric strip for testing. Cut completely through to the substrate surface.
5. Test dry adhesion using a tension-testing machine in accordance with ASTM C794 on one set of the two adhesion samples. Place the adhesion sample in the testing machine and peel the fabric back at a 180° angle at a separation rate of 2 inches/min.
6. Immediately after dry adhesion is tested, immerse the second set of adhesion samples in water for 7 days.
7. Test wet adhesion according to ASTM C794.
8. Calculations are done in accordance with ASTM C794. Adhesion results are reported in pounds per linear inch (PLI) by averaging the two values. Record failure mode as adhesive or cohesive and record any indication of cloth failure.

### BLISTER RESISTANCE TEST (PONDING)

1. Pre-treat EPDM rubber membrane as described under EPDM RINSE Application.
2. Cut a 9" square from the treated EPDM rubber membrane then cut 3" diagonals at the four corners.
3. Form the membrane into a bowl shape by overlapping the corners and place into a container such as a plastic food container (around 5.5" x 5.5" x 2.5" height). Cut down further to fit into the container if necessary. There should not be gaps where membrane overlaps.  
*Note: Any size container can be used. This is a good size for a bench top test.*
4. Apply the test coating via brush in two coats with a minimum of 4 hours between each coat. Use enough coating to achieve approximately 18-20 dry mil film thickness.
5. Allow the coating to dry for 14 days at 75°F and 50% relative humidity.
6. Fill the containers approximately 2/3 full with tap water. Place container lid or aluminum foil over top to prevent rapid evaporation.
7. Monitor coating over time for blisters or loss of adhesion.

### APPLICATION INSTRUCTIONS

1. Apply Metacrylics EPDM RINSE via a sprayer (Hudson-type agricultural, conventional pressure, or airless) at an application rate of 500 ft<sup>2</sup>/gallon.
2. Use a 3ft4 foot arc pattern.
3. Allow Metacrylics EPDM RINSE to stand for a minimum of 20 minutes.
4. Clean EPDM with a commercial power washer (between 2000-3500 psi). Clean the EPDM slowly and close to surface in order to remove mica and inorganic release agents.
5. Rinse thoroughly with power washer. The rinse step may be done at a faster pace than the cleaning step. The final rinse water should be clear with no soap bubbles present.
6. The EPDM will range from muddy-brown to black after washing with EPDM RINSE.
7. When surface is dry, begin coating.