INSTALLATION SPECIFICATIONS FOR COATING

FULL FABRIC REINFORCED SYSTEM on EPDM ROOFING

1.0 SCOPE

The intention of this specification is to outline the procedures for the application of Energy Seal Coatings reflective roof coatings for the purpose of coating **EPDM** roof surfaces. These suggested specifications describe materials, methods and conditions necessary for the proper application of Energy Seal Coatings. Actual application requirements are the responsibility of the installer.

2.0 MATERIALS

All Materials used shall be manufactured by and or approved by Advanced Coating Systems, Inc. Please refer to our product data sheets for technical specifications:

2.1 Elastomeric Coating System; see specific product datasheet for technical information

ACU-SHIELD	Acrylic, elastomeric roof coating
ACU-WASH:EPDM	Pre-treatment, water soluble detergent
ACU-GLOSS	Clear acrylic finish
ACU-FABRIC	Spunbound polyester reinforcing scrim
ACU-TAC	Advanced bonding adhesive to secure polyester scrim

2.2 Delivery and storage:

2.3 Materials shall be delivered in their original, tightly sealed containers or unopened packages, all clearly labeled with the manufacturer's name, file number, and batch numbers.

2.4 Materials shall be stored out of the weather in their original tightly sealed containers or unopened containers as recommended by the manufacturer. Do not allow liquid coating to freeze.

3.0 SURFACE PREPARATION

3.1 Preparation shall include all requirements specified by Advanced Coating Systems, Inc., to ensure proper adhesion of the Energy Seal Coatings products to the existing substrate.

3.2 Preparation shall include but not limited to the following:

3.3 All unnecessary and non-functional equipment and debris shall be removed from the roof.

3.4 Substrate must be pre-wetted with ACU-WASH:EPDM, non-diluted. Allow ACU-WASH:EPDM to remain on the roof surface for 15 minutes. Use a pressure washer with a minimum working pressure of 2,500 psi shall be used to remove the ACU-WASH:EPDM and all dirt, mica dust, as well as waste products (oil, oil-based roof cements, solvents, grease, animal fats, etc). A deck brush can be used to scrub the roof surface. Rinse the roof surface thoroughly. **EPDM** membrane should be Jet Black. Subsequent cleaning may be needed to achieve Jet Black color.

3.5 HVAC condensate drains shall be permanently routed to roof drains or off roof so as to not adversely affect roof coating system.

3.6 Determine moisture content of the roof deck under the EPDM. A moisture content of 15% or greater indicates a potential problem. Work shall not proceed until the cause of high moisture content is verified and the condition is corrected.

3.7 Inspect the condition of flashing details adjacent to protrusions, penetrations, roof mounted equipment, curbs, walls, parapets, drains and roof edge to ensure that details are acceptable and will maintain a weather-tight installation after properly reinforced and coated.

3.8 Ponding Water: Contractor shall mechanically eliminate all ponding water areas on the roof prior to application of roof coatings ("Ponding water" is defined as water which does not properly drain and remains for more than 48 hours).

4.0 COATING APPLICATION

4.1 Examine substrate to receive roof coating. Do not proceed with installation of Energy Seal Coatings until unsatisfactory conditions have been corrected in a manner acceptable to the manufacturer.

4.2 Use a wet film gauge to determine coating thickness every 500 sq.ft. The wet film thickness should be at least twice as thick as the desired dry film thickness per coat. For instance, one coat of ACU-SHIELD is to be applied at a thickness of 10 DRY mils. The wet film thickness should be 20 mils.

4.3 Entire roof shall be primed with ACU-TAC at a rate of 1.5 gallons per 100 square feet. While the ACU-TAC is still wet roll out 44" ACU-FABRIC, making sure there are no wrinkles or puckers in the ACU-FABRIC. Then apply a second coat of ACU-TAC to the top of the ACU-FABRIC at a rate of 1.5 gallons per 100 square feet, making sure the ACU-TAC is completely saturated. Allow 24 hours to dry before top coating with ACU-SHIELD. A fog coat of ACU-SHIELD can be used on top of the ACU-TAC to lessen the tackiness, prior to the application of the first full coat of ACU-SHIELD.

4.4 Apply ACU-SHIELD elastomeric coating by airless spray equipment, using a mulit-pass spray technique to ensure even application to the ACU-FABRIC. Use a wet film gauge often to measure film thickness. Wet film thickness should be twice as thick as the desired dry film thickness.

4.5 Apply first coat of ACU-SHIELD at a rate of 1.25 gallons per 100 square feet. First coat shall be applied perpendicular to the seams of the ACU-FABRIC. Dry film thickness shall be approximately 10 mils. Back roll ACU-SHIELD so as to completely penetrate the ACU-FABRIC surface.

4.6 Apply second coat of ACU-SHIELD at a rate of 1.25 gallons per 100 square feet. Second coat shall be applied perpendicular to the first coat. Dry film thickness shall be approximately 10 mils.

4.7 Apply third coat of ACU-SHIELD at a rate of 1.25 gallons per 100 square feet. Third coat shall be applied perpendicular to the seams of the ACU-FABRIC. Dry film thickness shall be approximately 10 mils. Back roll ACU-SHIELD so as to completely penetrate the ACU-FABRIC surface.

4.8 Apply fourth coat of ACU-SHIELD at a rate of 1.25 gallons per 100 square feet. Fourth coat shall be applied perpendicular to the first coat. Dry film thickness shall be approximately 10 mils.

4.7 Apply ACU-GLOSS clear acrylic coating at a rate of 1.25 gallons per 100 square feet after the ACU-SHIELD has thoroughly cured and dried for at least 24 hours. Dry film thickness shall be approximately 5 mils.

4.8 Each coat must be allowed to cure for 24 - 48 hours depending on humidity and temperature. The roof is to be inspected for defects, flaws or holidays and repaired if necessary before a subsequent coat is applied.

5.0 WARRANTY

5.1 **Standard** 10-year manufacturers warranty will be issued for this system. Contractor will warranty installation for the first five years of the Standard warranty.

6.0 RESTRICTIONS / LIMITATIONS

6.1 This system is to be used only in conjunction with commonly accepted roofing standards but not limited to the following:

6.3 No materials are to be applied to wet, dirty, or frozen surfaces.

6.4 No materials are to be applied at temperatures below 40° F.

6.5 Do not apply when dew point is within 5°F of the surface temperature or if freezing temperatures (32°F or lower) are forecasted for the following 24 hours after application of coating products.

6.6 No materials are to be applied at ambient air temperatures above 100° F.

6.7 No materials are to be applied at relative humidity levels above 88%.

6.8 Do not spray apply if the wind velocity exceeds 10 mph without taking precautions to eliminate over spray.

6.9 Take all necessary precautions to protect unrelated surfaces from coating over spray or spillage

6.10 In conjunction with the final inspection, all debris, containers, materials and equipment are to be properly removed from the job site. Grounds are to be cleaned undamaged and acceptable to the owner.

6.11 Reflectivity of coatings may be reduced if roof surface is not cleaned on a regularly scheduled basis.

6.12 Ponding water areas must be repaired prior to any coating application to allow water to drain off the roof.

CAUTION: Do not apply within two hours of sunset, rain, fog or freezing temperatures. Energy Seal Coatings must be completely dry before exposing to water or foot traffic. Keep Energy Seal Coatings containers covered when not in use. Dispose of all containers in accordance with state and local environmental regulations. Keep away from children. If ingested, DO NOT induce vomiting. Call Physician immediately.

Our suggested installation specifications are based on information from laboratory and field testing which we believe to be reliable and correct; however, accuracy and completeness of said tests are not guaranteed and not to be construed as a warranty, either expressed or implied. Since the use of the material is beyond manufacturer's control, buyer assumes all risk whatsoever as to their use or results obtained. We guarantee our products to conform to Advanced Coating Systems, Inc. quality control. Advanced Coating Systems, Inc. warrants only the standard quality of material. Manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proved to be defective.