WARRANTY SPECIFICATIONS FOR COATING

NEW POLYURETHANE FOAM 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 **NEW POLYURETHANE FOAM ROOFING (PUF)** 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

ACU-FLEX	Acrylic, elastomeric roof coating.
ACU-PRIME ALL	Durable primer for non-metal or non-rusted metal surfaces.
ACU-GLOSS	Clear acrylic finish.

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. **New PUF roof surfaces shall be coated within 72 hours of application.**

3.2 Preparation shall include but not limited to the following:

3.3 **PUF** surface shall be free from loose dirt, stone, debris, moisture and shall be in stable condition. Any work on the area to receive any Energy Seal Coatings products shall be completed prior to installation.

3.4 Substrate must be cleaned using power vacuum equipment, power sweepers, air blowers power washer or other suitable means.

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 Sprayed in place polyurethane foam is applied at a desired thickness (1” (93 cm)) to fulfill thermal insulation requirements and to provide seamless monolithic surface over a variety of roof designs, shapes, and draining slopes.

3.7 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-FLEX 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-PRIME ALL at a rate of 200 square feet per gallon. ACU-PRIME ALL must be allowed to cure for 24 hours.

4.4 Apply ACU-FLEX elastomeric coating by airless spray equipment, using a mulit-pass spray technique to ensure even application to the **PUF** roof surface. 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-FLEX: First coat shall be applied perpendicular to the seams of the **PUF** roof surface. Dry film thickness shall be approximately 10 mils.

4.6 Apply second coat of ACU-FLEX: Second coat shall be applied parallel to the first coat. Dry film thickness shall be approximately 10 mils.

4.7 Apply third coat of ACU-FLEX: Third coat shall be applied perpendicular to the second coat. Dry film thickness shall be approximately 10 mils.

4.8 Apply ACU-GLOSS clear acrylic coating is to be applied only after the ACU-FLEX has thoroughly cured and dried for at least 24 hours.

4.9 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 APPLICATION RATES

5.1 **Standard** 10-year warranty: Apply ACU-PRIME ALL (see 4.3) Apply two coats of ACU-FLEX (see 4.5 - 4.5) at a rate of 1.5 gal./100 sq.ft., per coat. Minimum dry film thickness 20 mils, excluding seam, flashing, joints and other detail areas.

5.2 **Extended** 12-year warranty: Apply ACU-PRIME ALL (see 4.3) Apply two coats of ACU-FLEX (see 4.5 - 4.6) at a rate of 1.5 gal./100 sq.ft., per coat. Apply one coat of ACU-GLOSS on top of the ACU-FLEX at a rate of 1.0 gal./ 200 sq.ft. (see 4.8). Minimum dry film thickness 20 - 23 mils, excluding seam, flashing, joints and other detail areas.

5.3 **Elite** 15-year warranty: Apply ACU-PRIME ALL (see 4.3) Apply three coats of ACU-FLEX (see 4.5 - 4.7) at a rate of 1.5 gal./100 sq.ft., per coat. Apply one coat of ACU-GLOSS on top of the ACU-FLEX at a rate of 1.0 gal./ 200 sq.ft. (see 4.8). Minimum dry film thickness 30 - 33 mils, excluding seam, flashing, joints and other detail areas.

5.4 NOTE: All roofs with less than 2/12 pitch. Acu-Flex:Hydro should be used in place of Acu-Flex at a rate of 1.5 gallons per 100 sq.ft., per coat.

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:

6.2 No application of materials shall commence during inclement weather or when precipitation is imminent. **No thinning of materials is permitted.**

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.

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

6.5 Do not apply when dew point is within 5°F of 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.