

# Energy Seal Coatings

Cool Roof Solutions

## Acu-Flex:100

Single Component Silicone Elastomeric Coating



### DESCRIPTION

Acu-Flex:100 is a high solids single component, VOC compliant, moisture cure silicone rubber coating. It is specifically designed for use in roofing application as a weatherproof, ultraviolet resistant, 'Cool Roof' coating. Product performs well under all weather conditions from sub-zero to high heat in excess of 200°F (93°C).

### USES

Acu-Flex:100 is used as a breathable membrane possessing superior weathering and water resistance characteristics. It exhibits rapid cure when exposed to ambient conditions. *However, it is not to be applied to the exterior of refrigeration tanks or cold storage roofing.*



### FEATURES & BENEFITS

**SRI: 110**

**Solar Reflectance: 0.87**

**Thermal Emittance: 0.89**

Once cured, this liquid applied silicone coating provides a durable, seamless, flexible, waterproof membrane that resists lateral movement/ shear and will allow for normal expansion and contraction. Acu-Flex:100 offers greater UV protection than other coatings and provides increased resistance to moisture penetration. Acu-Flex:100 has excellent long term protection and shows exceptional weatherability properties.

Acu-Flex:100 offers excellent protection over primed BUR and granulated cap sheet, concrete, well-adheared acrylic coating, metal, EPDM, spray-in-place polyurethane foam and various membrane roofing materials.

### PREPARATION

Apply Acu-Flex:100 only to clean, dry, mechanically sound surfaces free of loose particles or other foreign matter. Roof surface must be dry before application. For best results, ambient temperature should be between 50-90°F. It is not recommended to apply within 1 hour of rainfall.

Acu-Flex:100 is ready to use. **Thinning is not required or recommended.**

Acu-Flex:100 is a moisture cure product. Coating should be dry before exposing to water.

As with any product, use of Acu-Flex:100 coating in a given application must be tested (including but not limited to field adhesion testing) in advance by the user to determine suitability.

Not recommended for continuous immersion service. Acu-Flex:100 will withstand most ponding water conditions typically found on a flat roof; however, ponding water areas should be corrected to achieve a positive pitch, as stated by the National Roofing Contractors Association.

### APPLICATION

Spray: Airless sprayer. 3500 p.s.i. at the gun, 3 g.p.m. capacity with a #631 tip. Hoses should be BUNA-N jacketed to prevent moisture contamination.

Brush: Soft bristle brush.

Roller: Medium nap roller.

Maximum time between coats is 24 hours to ensure good adhesion of the Acu-Flex:100 to the previous coat.

# ACU-FLEX:100



**V.O.C.**  
**< 10 g./lit.**

Rev 07/15

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[www.energy-seal.com](http://www.energy-seal.com)

Seal It. Conserve It. Protect It.



# Acu-Flex:100

## Technical Data


<b>Color:</b>	White
<b>Viscosity:</b>	8,000 – 14,000 cps Brookfield @ 25°C / 77°F
<b>Density:</b>	10.7 lb. per gallon
<b>Percent Solids by Volume:</b>	97% ± 2%
<b>Percent Solids by Weight:</b>	97% ± 2%
<b>Flash Point:</b>	290°F/ 37°C
<b>Impact Resistance:</b>	Exceeds 160 in/ lb ASTM D624
<b>Tensile Strength at Max Stress:</b>	432 psi @ 25°C / 77°F ASTM D412
<b>% Elongation at Break:</b>	216% @ 25°C / 77°F
<b>Permeability:</b>	5.9 perms ASTM D96
<b>Continuous Service Temperature:</b>	185°F (85°C)
<b>Standard Coverage:</b>	3/4 gallon per 100 sq.ft.
<b>Number of coats required:</b>	2 coats, minimum
<b>DFT (dry film thickness minimum)</b>	20 mils
<b>Min. Surface Application Temp.:</b>	35°F / 2°C
<b>Drying Time estimation:</b> Dry time dependent on temperature and relative humidity.	Dry to touch: 4 - 6 hours Tack Free: 1 hours Recoat: 8 hours
<b>Shelf Life:</b>	6 months @ 75°F in unopened tightly sealed container.
<b>Packaging:</b>	5 gallon buckets and 50 gallon drums
<b>Clean Up:</b>	VMP Naphtha

**D.O.T. Classification:** Roof Coatings, not regulated  
Protection X

**HMIS Rating:** Health 2, Flammability 2, Reactivity 0,

0= Minimal 1=Slight 2=Moderate 3=Serious  
4=Severe

### Do Not Thin

		<b>Initial</b>	<b>Weathered</b>
	<b>Solar Reflectance</b>	<b>0.87</b>	<b>0.70</b>
	<b>Thermal Emittance</b>	<b>0.89</b>	<b>0.90</b>
	Rated Product ID Number	0006	
Licensed Seller ID Number	0728		
Classification	Field-Applied Coating		
<small>Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary.</small>			
<small>Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.</small>			

**SURFACE PREPARATION:** All surfaces to be coated must be clean, dry, and paintable. It may be necessary to power wash and/or prime to enhance adhesion. See application specification for more details.

**MIXING PROCEDURES:** No thinning or reducing is necessary. Product may separate after shipping and storage, though it may still look mixed. When mixing becomes necessary we recommend the use of a 3/4 horsepower or larger air operated mixer with a blade capable of uniformly mixing the entire container. When product is in 5-gallon pails use a 3" minimum diameter-mixing blade, or hand mixing with a suitable blade is acceptable. When product is in drums, use a 6" minimum diameter-mixing blade.

Containers are packaged with a layer of dry nitrogen gas, to keep latent moisture from prematurely starting the curing process. After opening a container, try to use it up as soon as possible, or reseal with a layer of argon or nitrogen gas.

**WEATHER RESTRICTIONS:** It is not recommended that this product be applied at temperatures below 50 F. (10 C.), or if rain is expected within 1 hour of application. Acu-Flex:100 may be applied at lower temperatures; however the cure time will be extended.

**APPLICATION EQUIPMENT:** This product may be sprayed, brushed, or rolled. Due to the high viscosity of the material, a high-pressure airless paint pump capable of producing a minimum of 3500 PSI at the spray gun head should be used. The pump should have a minimum of 3 gallons per minute output and be fed by a 5:1 transfer pump to prevent cavitation. Always use components rated for pump pressure. Hoses should be BUNA-N jacketed for prevention of moisture contamination. Hoses should have a minimum I.D. of 3/4" and an adequate working pressure. The spray gun should be high pressure (5000 PSI) with reverse-a-clean spray tip, having a minimum orifice of .030 and a 50 fan tip.

**DO NOT USE** hose that has been used for Acrylics because the liner absorbs moisture and initiates the silicone cure process.

**APPLICATION PROCEDURES:** This product may be applied directly to any clean, dry surface. Polyurethane foam should be coated within 24 hours of application. Subsequent coats should be applied within 48 hours of prior applications to insure full and uniform adhesion. Coating may be applied in 2 or 3 separate applications of contrasting colors, each applied at right angles to the previous coat. Coating must be evenly applied and pinhole-free.

Before applying a subsequent coat of this product the previous coat must be completely dry and cured. If any contamination of a thoroughly cured surface occurs, it must be washed with a chemical cleaner before applying subsequent coats. Coating must be extended beyond the substrate to create a self-terminating flashing.

Due to the bond agent present in all coating, colors may be used as either a base or a topcoat. The coating will cure in 2-8 hours, dependent on weather conditions (such as temperature and humidity), after which another coat can be applied. A #11 ceramic roofing granule may be installed in the topcoat to improve aesthetics, traffic resistance and impact resistance.

**RECOATING PROCEDURES:** This product may be used to re-coat existing spray-in-place roofing systems. The surface to receive re-coat must be thoroughly cleaned using power scrubber, pressure washer, chemical cleaners, and thoroughly rinsed. Surface must be completely dry before applying re-coat.

**SAFETY PRECAUTIONS:** This product contains combustible solvents. Keep coating material and cleaning solvents away from all sources of heat, sparks, flame, lighted smoking materials, or any other ignition source. Pumping equipment should be grounded to avoid accidental ignition due to static sparks.

Avoid breathing solvent vapors. Use an appropriate MESA/NIOSH approved respirator when exposure can exceed recommended PEL. This product is not recommended for interior use. Additional care must be taken to prevent roof top HVAC equipment from introducing evaporating solvent into interior areas during application. Building occupants should be warned of spray operations in process.

Installers should exercise caution during spray processes to avoid falls caused by stepping into slippery wet coating. Installers should read and understand all technical and informational literature on this product, including the MSDS, prior to use of the product.

**CLEAN UP:** Cleanup of spray equipment containing uncured material may be accomplished by flushing with VM&P Naphtha or mineral spirits. Acu-Flex:100 cures by reacting with moisture and should not be left in spray guns, pump equipment and hoses for prolonged periods unless equipment contains moisture lock hoses, fittings and seals. Equipment without these components will transmit sufficient moisture vapor to gradually form cured material on hose walls and at unsealed connections potentially causing an increase in operating pressure and material flow restriction.

**CAUTION:** Do not apply within one hours of sunset, rain, fog or freezing temperatures. All coatings must be completely dry before exposing to water or foot traffic. Keep all 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 technical data and suggestions are based on information from laboratory and field-testing which we believe to be reliable and correct. However, the 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 conform to Advanced Coating Systems, Inc. quality control. Advanced Coating Systems, Inc. warrants only the standard quality of material. Advanced Coating Systems, Inc. sole responsibility shall be to replace that portion of our product, which proved to be defective. Installer is responsible to test adhesion and product compatibility with substrate of all Energy Seal Coatings products prior to application.