Ceramic InsulCoat Roof
Application and Maintenance Procedures for Built-Up Roofing Systems
Built-Up Roofing (BUR)

Built-Up Roofing systems range from conventional torch down asphalt systems to technically advanced modified bitumen systems.
Topcoat

Ceramic InsulCoat Roof

is intended to be a topcoat providing
an extension to the existing roof system
and is not a stand-alone roof product.
A Rainbow of Colors

• Many roof coating products are available only in white or a handful of colors.

• Ceramic InsulCoat Roof can be tinted just like paint to any light color.

• Tinting completed through our distribution partners.
Preparation Methods
Straight Forward Process

• Follow National Roofing and Contractors Association (NRCA) guidelines
  – Allow new roofing systems to cure
  – Make required repairs to existing roofing systems and allow to cure
  – Prepare the substrate to receive the coating
  – Clean, Dry and Sound
New BUR Roof Systems

Newly installed Built-Up roofing systems need to be allowed to cure before the application of Ceramic InsulCoat Roof
Roofs Need to Cure - Why?

• As building materials dry, they exhaust gases and vapors (water, chemical, etc.) to the atmosphere - referred to as off-gasing.

• When the building material has completely dried (and hardened) - it has cured.

• If Ceramic InsulCoat Roof is applied over a building material before it has fully cured - Ceramic InsulCoat Roof could blister and/or bubble.
Existing Built-Up Roofing Systems

Ceramic InsulCoat Roof can be applied to most typical Built-Up Roofing Systems.

Conditions we encounter:

– Have weathered over time
– Cracks, holes, leaks, rips, torn surfaces, etc.
– Dirt, stains, mold, and mildew growth
– Covered with loose granules
– They are porous
Cracks, Holes, Joints, Leaks, Rips, Torn and Uneven Surfaces

Use National Roofing and Contractors Association (NRCA) Guidelines

– Patch, plug, repair and/or replace damaged areas

– Select the appropriate repair or replacement material that best meets the project parameters

– Allow repaired areas to cure
Compatibility with Building Materials

- Like all water-based paints and coatings, Ceramic InsulCoat Roof will not adhere to silicone.

- Questions about Building Materials compatibility should be directed to your EnviroCoatings Factory Representative.
Modifications and Repairs (Allow to Cure Completely)

Hotel: Conventional Built-Up Roof System
New BUR “Crickets” Installed to Channel Water into Drains
Manufacturer Specifications required 30 Days to Cure

Mansion: Asphalt Roof Party Deck
Cracks filled with Patching Compound
Manufacturer Specifications required 48 Hours to Cure
After the Roof System has Cured

Thoroughly clean

the entire

Roof Surface
Remove Fungus, Mold and Mildew

Treat areas with a bleach solution.

- Two parts water to one part bleach
- Use deck brush and/or pot brush to scrub surface - work into substrate
- Rinse off thoroughly
- Retreat as needed
Clean and Pressure Wash

• Treat fungus, mold and mildew as shown in the previous slide.

• Remove other surface contaminates such as: dust, dirt, grime, oils, residues, etc.

• If needed, use appropriate detergent and water.

• Rinse off thoroughly.

• Pressure Wash the entire Roofing System.
Scrub and Pressure Wash

Recommendations:
1. Sweep Roof.
2. Remove Fungus, Mold and Mildew with Bleach Solution.
3. Scrub Heavy Dirt Areas with Detergent and Water.
4. Pressure Wash Entire Roof.
Allow the Roof System to Dry

Typical BUR Roof Surfaces usually dry completely Overnight
After the Roof System Dries: Loose Granules May Remain

Blow, Sweep or Vacuum to Remove
Prime and Coat the BUR System

The application of Ceramic InsulCoat Roof on a BUR System is a three-part process:

1. Primer: A single coat of Ceramic InsulSeal

2. Topcoat: Two coats of Ceramic InsulCoat Roof
No Need to Stand Around Waiting for Paint to Dry

- The application of Ceramic InsulCoat Roof can be completed the same day.
- Many roof coating systems require 4 - 6 - 8 - 24 hours between coats.
Begin Work First Thing in the Morning

• Start work early in the day before the roof system heats up.

• Each phase of applying the Ceramic InsulCoat Roof system will dry within 1-2 hours in light to medium humidity.

• You can then proceed with the next coat.
Application Methods

- **Brush or Roll - Medium to Heavy Nap Roller**
- **Spray - Commercial Airless Sprayer**

**Pump Specifications:**
- 2.5 gallons per minute
- 3,000 PSI

**Hose:**
- 3/8” Hose

**Gun and Tip:**
- Airless Spray Gun
- Roof Tip: 0.23” - 0.584mm tungsten-carbide tip

- Easy to apply and easy to clean up
Ceramic InsulSeal - Technical Specifications

- Use as a priming, penetrating sealant on porous substrates - Such as Built-Up (BUR) roofing systems.
- Single Coat Application.
- Coverage is 350SF to 450SF per gallon (Sold only in 5-gallon pails).
- Dries clear in 1-2 hours in low to moderate ambient humidity.
Application of InsulSeal

Hotel: Conventional BUR System

Hotel: Close-Up

Mansion: Exterior Asphalt Roof Party Deck

Commercial: Previously Painted BUR System
Ceramic InsulSeal Drying Time

• Will dry clear in 1 - 2 hours in low to moderate ambient humidity.

• Insure the surface is tack-free.

• Begin the application of the first coat of Ceramic InsulCoat Roof.
Ceramic InsulCoat Roof - Technical Specifications

- Apply to a Clean, Dry and Sound Substrate.
- Ceramic InsulCoat Roof is a two-coat system.
- Coverage is 175SF to 225SF per gallon on a smooth, clean, dry, and sound substrate.
- Each coat is applied at 8 - 10 wet mils.
Ceramic InsulCoat Roof - Installation Specifications

• Sold in 5-Gallon Pails.

• **Do not** alter product.

• **Do not** add water or thinners.

• Stir or shake container before application.

• Box product to ensure uniformity of color.
Ceramic InsulCoat Roof - A *Thixotropic* Product

**What?**

- The product has a natural appearance similar to yogurt.
- Like yogurt, viscosity will appear to vary by age, temperature and agitation.
- To obtain workable viscosity always shake or stir before use.
Shake or Stir Container before Application

Drill Paint Mixer used to Stir Product On-Site
Ceramic InsulCoat Roof - Application Recommendations:

• Spray the first coat and back roll - *In order to work the product into uneven surfaces, nooks and crannies.*
Ceramic InsulCoat Roof - Application Recommendations:

- Spray the second coat.

- Each coat is applied at 8 - 10 wet mils.
Ceramic InsulCoat Roof can be applied via brush, roller or sprayer

Safety Recommendation: Wear dark sunglasses
Ceramic InsulCoat Roof specifications call for 8 - 10 wet mils per coat.

Wet Mil Gauge reads 10 mils
Drying Time between Coats

• Ceramic InsulCoat Roof will dry to the touch in 1 - 2 hours in light to moderate ambient humidity.

• The second coat can be applied when the surface is tack-free.
Completed Projects
Final Drying and Cure Time

• Initial dry time after the two coats are applied is 48 hours.

• If possible, Stay off the Roof System for at least 48 hours.

• Ceramic InsulCoat Roof will completely cure in 90 to 120 days.
Warranty Inspection

• EnviroCoatings conducts a physical inspection of all warranty projects.

• An Ultra-Sonic Gauge is used to measure the dry film thickness of the membrane.

• A minimum of 11-12 dry mils are required to meet our specifications.
Ultra-Sonic Readings

A series of Ultra-Sonic readings are taken to measure dry film thickness
Maintenance Procedures
Out of Sight…Out of Mind

- Roof Systems are exposed to the elements, in all climates, in every type of weather, 365 days a year.
- They become dirty.
- Especially true on Flat Roof Systems.
- Thermal capabilities are reduced - in particular - Solar Reflectance.
Nature Leaves Its Mark

• Over time Roof Systems accumulate all sorts of debris:
  – pollution,
  – dirt,
  – grime and slime,
  – leaves,
  – mold and mildew,
  – mud, etc.
Preventative Maintenance Schedule

• Most Facilities utilize some sort of preventative maintenance program for equipment.

• EnviroCoatings recommends incorporating the maintenance of Ceramic InsulCoat Roof (and the Roofing System) into your program.
Easy to Maintain

- Sweep, blow or hose off (with municipal water pressure) Ceramic InsulCoat Roof to remove the accumulation of debris that nature deposits on the Roof System.

- **Do not** pressure wash.
If Scrubbing is needed:

- Use dish soap and water;
- A soft-bristle brush (RV - Semi Truck scrub brush is recommended);
- Then thoroughly rinse Ceramic InsulCoat Roof with municipal water pressure.
Mold, Mildew, Lichen, Mosses:

- Use a “Green” fungicide that is available through paint outlets;
- Follow directions;
- If scrubbing is needed, use a soft-bristle brush (RV - Semi Truck scrub brush is recommended);
- Then thoroughly rinse the roof with municipal water pressure.
Safety Tips

• Wear sunglasses and hats on sunny days.

• Ceramic InsulCoat Roof cures to a hard finish and can be slippery.

• Be careful with Morning Dew, Rain, Snow, Ice, and similar conditions.

• Install and use walk pads to move about the Roof System.