

# THE EVOLUTION OF SureCoat Systems Industrial Coatings for Commercial Use





**SURECOAT**  
SYSTEMS

# The SureCoat Roof System

## Premium Roof Coatings





## Our Family of Roof Products





## The SureCoat Roof System

Consists of 3 Different Products:

SureCoat Roof Coating

Poly Mesh Fabric

SureSkrub

All Products Manufactured in the USA

SureSkrub is a cleaning etching conditioning biodegradable detergent

Poly Mesh is a soft woven uniform pliable fabric with tiny voids for easy saturation.

The *SureCoat* Coating is a waterproof thermal emitting energy efficient UV stable epoxy hybrid made with 4 different resins, instead of 1. Resin are the expensive part of coatings that provide the characteristics of the coating.

2013 - All Rights Reserved - SureCoat  
Systems, Inc.





## What makes a roof coating Title 24 compliant

There are multiple Title 24 compliance methods. One of them, the envelope compliance method, requires the use of *cool roof membranes*.

**For low-slope buildings, a cool roof must have a:**

**minimum 3-year aged reflectivity value of 0.55 (55%) WITH  
a minimum emissivity value of 0.75 (75%) OR**

**a minimum aged solar reflectance index (SRI) of 64 to be compliant.**

**SureCoat & Sure-a-thane exceed both of the above requirements**



### Who is the CRRC-Cool Roof Rating Council & Energy Star?

To get the 3 year test results to confirm a coating is Title24 compliant, the industry relies primarily on the **CRRC-Cool Roof Rating Council**. This is an independent agency that charges several fees to do the initial and 3 year aged testing, annual listing on their web site and to certify the results to the EPA for the Energy Star Partnership. It is not required to go through them although they have become the benchmark for the industry because the web site gives everyone easy access to the specifications of coatings for reflectivity and thermal emittance. SRI values are used for LEED Program points. The CRRC does not endorse any product.



The Energy Star program accepts the CRRC 3 year aged testing for participation in their program which after paying fees, allows you to use their logos stating that the coating has minimum initial & aged reflective and thermal values equal to Title 24 requirements. The Energy Star Partnership shows that you have a commitment to using products that are energy efficient and often there are rebate programs available for buying products with the Energy Star Logo.





## Who determines the criteria that make up the testing methods?

**ASTM International**, known until 2001 as the **American Society for Testing and Materials (ASTM)**, is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services. There are 6 categories for coating the one that applied is The **Standard Test Method**, that defines the way a test is performed and the precision of the result. The result of the test may be used to assess compliance with a Standard Specification.

On roof coating specifications look for E-96 for permeability which tells you how fast moisture passes through the coating. This is not required under any of the energy programs earlier outlined. It should be because if the coating doesn't stay on the roof it has no value. However, most roof coatings would not rate well. The lower the number the better for waterproofing. Less than .05 is best less for flat or low sloped roofs. SureCoat has .0025 & Sure-a-thane has .019 per rating. This why leaks in ponds are covered in our warranty



SureSkrub is a cleaning etching conditioning biodegradable detergent that removes degraded plastic, asphalt or other material out of the roof.

## HOW TO USE:



A Hudson Sprayer can be found at any hardware or big box store for \$15-\$30 & up depending on the quality.

SureSkrub is concentrated and should be diluted before being applied to the roof. It is up to you how much. The roof should be power washed first to remove the dust and surface dirt. Then apply the diluted SureSkrub with a Hudson Sprayer. Just apply to a few scattered spots. Over applying means extra rinsing. Then scrub with either the floor scrubber or stiff bristle broom. Let it sit for 15-25 minutes without allowing it to dry. The soaking time depends on the amount of dirt on the roof. If it dries on the roof re-wet and scrub again. After soaking agitate & scrub a 2<sup>nd</sup> time with the broom or floor scrubber. Rinse thoroughly; do not leave a residue to dry on the roof as it could inhibit adhesion.





SureSkrub is a cleaning etching conditioning biodegradable detergent that removes degraded plastic, asphalt or other material out of the roof.



It enables the SureCoat Coating can adhere directly and fully bond to the existing roof membrane. It is made to rinse off without leaving a film that can inhibit adhesion like other cleaners. Using a floor scrubber will make the cleaning process go much quicker especially on single ply. There are 3 different color and texture pads and bristle attachments that can be used.

White-soft  
Green-medium  
Black-rough





SureSkrub & Floor Scrubber can also be used to help remove coatings that are delaminating over single ply without tearing up the membrane. It is best to use the white softer of the scotch brite pads when cleaning single ply. The bristles can be used on Cap Sheet & Smooth BUR to remove grease or built up organic matter quickly.



Removing failed coatings is the best way to use SureCoat so that it can bond to the surface it is going to be protecting.

SureCoat has continuing bonding properties due to a specific resin we use making it self-adhered, self-priming and self-flashing. That is why a repair can be done years after the roof is installed without leaving a cold joint or delaminating.

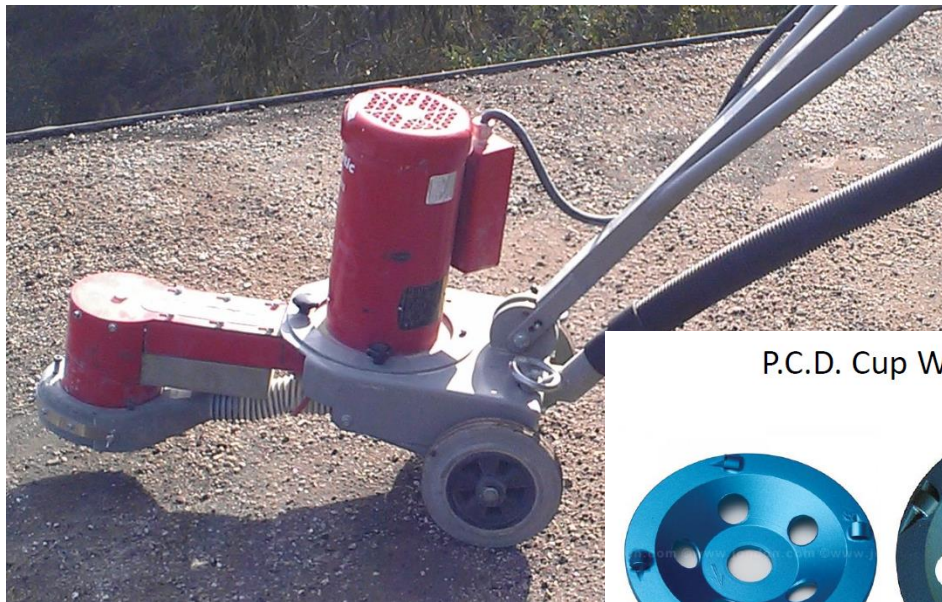
Renewal applications also do not leave cold joints. The new coating bites into the original SureCoat.

2013 - All Rights Reserved - SureCoat  
Systems, Inc.

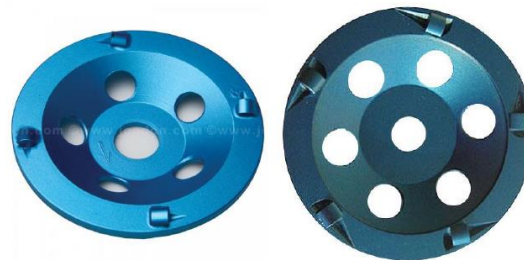




Walk Behind Grinder with PCD cup wheel and Vacuum to remove Rock will make tar and gravel projects go faster. Cost of blade is approx. \$140-\$200 and will do about 20,000 SF depending on the aggregate size, texture and amount embedded in the asphalt.



P.C.D. Cup Wheel





The Vacuum has bags that can be pulled down and tied off as you go making removal easy. This helps distribute the weight and makes it easier to remove from the roof. Piling up the rock in one area puts a lot of weight on a roof. The other option is to have a service vacuum & spud the roof. That will remove the bulk of the gravel. But they don't usually get it smooth enough and additional work is needed to prepare it. By getting the roof as smooth as possible will help increase the coverage rate and less coating can be used to bury the gravel heads and fill in the divots. Instead of 6 gallons per square, approximately 4 to 4 ½ gals would do this roof below. If 5 gals instead of 6 gals per square is needed, it saves money on labor and materials while being easier to install.





# Tar & Gravel Installation

Difficult

Removing all of the embedded gravel would have left holes in the roof.

Use Poly Mesh embedded in SureCoat around all curbs, skylights, & penetrations.



Spud gravel as low as possible to remove what can be done without leaving holes, & clean with SureSkrub

SurePrime can be used when adhesion may be an issue due inability to smooth surface





# Tar & Gravel Installation

Difficult page 2

Use 2 gals per square to float in low spots  
And bury the high piece that wouldn't come out



Water should never be added to SureCoat to cut the material to stretch it. However this is the ONLY application were a little water can be added to thick coating to make it flow

Apply 2 gallons per square for basecoat to embed Poly Mesh. In some cases additional coating may be needed to fully adhere fabric to roof.



Top Coat with final Use 2 gals per square. We have cool roofs in several colors as an option on low slope roofs that can be seen from the street.



. Make sure that the flood coat is completely dry before proceeding with the basecoat.





Solar Panels will be installed on this garage. There is about 8 gallons per square to cover the double layer of asphalt and 1" rock





# Poly Mesh Fabric



Poly Mesh is woven uniform soft pliable polyester fabric that is used in the SureCoat Roof System. It is used around all penetrations, curbs, skylights, and in the entire roof field on all roof types to get a written manufacturers warranty. The only type of roof that doesn't require fabric in the field is Metal Roofs but it is required in other areas of the roof as mentioned. It increases the PSI-the tensile strength of the finished membrane from 470psi to 2800 psi. Most acrylic and reflective coatings have a strength of 220-280 psi. None of those are waterproof either.

**Poly Mesh comes in 4 precut roll sizes: 4", 6", 12" and 42" all are 300 feet long.**





**SureCoat**  
**Bright white**



**SureSet**  
**Slightly grayish**  
**white in color**

SureSet is a faster drying basecoat used in The SureCoat Roof System instead of SureCoat when ambient air temperatures lower than 55°F and rising are expected. SureSet will dry in 2-12 hours and can be used down to 40°F and rising. The Poly Mesh can be embedded in the SureSet and will create a water and weather tight membrane. It is not as UV stable as SureCoat and needs to be cleaned top coated within 4 months. Does not change the warranty



## What a SureCoat Roof is...

- ❖ White Membrane
- ❖ Waterproof
- ❖ Monolithic/Seamless
- ❖ Single Component
- ❖ Cross-Linked Epoxy
- ❖ Nano Technology
- ❖ 4 Proprietary Resins
- ❖ UV Stable
- ❖ Cool Roof, LEED pts.
- ❖ Title 24 Compliant
- ❖ ENERGYSTAR/CRRC\*
- ❖ Renewable System
- ❖ Withstands Ponding Water
- ❖ Same coating throughout

**\*ENERGYSTAR and CRRC available if needed**



The Last Roof a Building Ever Needs!  
By using the existing roof as a base; The SureCoat Roof System is better than a traditional re-roof.



***The SureCoat Roof System*** is a durable Roof Coating that is warranted to hold up to the elements including ponding water, pollutants, mold, mildew, animal fats, and most chemicals. The SureCoat Roof System has a 10 to 20 year renewable warranty. It is an energy efficient product that exceeds Energy Star & Title 24 requirements with 86- 91% UV reflection and 88-93% emissivity. SureCoat has less than 1% VOC (23 grams per liter max) listed as a Super VOC Compliant product on the AQMD Web Site. and is made from natural renewable resources.

There is no need to tear off and dispose of old roof materials in landfills.



This can be found on the SCAQMD'S web site.

South Coast Air Quality Management District SCAQMD'S

This list the super compliant architectural coatings. There are only 3 pages with 8-10 companies per page. This maximum is 50 grams per liter to be super compliant the coating must have much less than 50 grams per liter. The South Coast AQMD choose to install 134,000 SF of the SureCoat System over their roofs for a number of reasons. These are the same reason that your customers would benefit from using the SureCoat Roof System to restore their worn out roofs.



SureCoat Systems <a href="http://surecoatssystem.com">http://surecoatssystem.com</a>	StrucSure Coat SureCoat Roof System	NO	YES	877-823-7873
---	--	----	-----	--------------

Super-Compliant Architectural/Industrial (AIM) Coatings

Architectural Coatings				
Manufacturer	Super-Compliant Coatings	Interior	Exterior	Phone Number





***The SureCoat Roof System*** is durable and maintains its waterproof ability under adverse conditions that are present on most flat roofs. This roof has ponding areas that are approximately 2 inches deep year round due to design & construction issues. ***The SureCoat Roof System*** material has held up without any blisters or wrinkles.

The brownish red color is algae on dirt that has accumulated due to the constant presence of water.

***The SureCoat Roof System*** material has mold and mildew inhibitors. This does not compromise the integrity of the coating. This area should be cleaned during routine maintenance to achieve the best reflectivity performance.





Coating Systems used on flat roofs **HAVE FAILED**. Most Coating Systems were **designed to be reflective membranes**, **not to be applied as waterproofing**. Even over emulsion enhanced with bentonite clay, acrylics don't work. The **reflective material comes off** then the **emulsion absorbs heat and UV that accelerate deterioration**. It is time for the **Flat Roof Owners to invest in a product made for their flat roofs;**  
**TO PROTECT THEM FROM WATER INTRUSION AND UV DEGRADATION**





# ACRYLIC/EMULSION-REFLECTIVE COATINGS ARE NOT WATERPROOFING

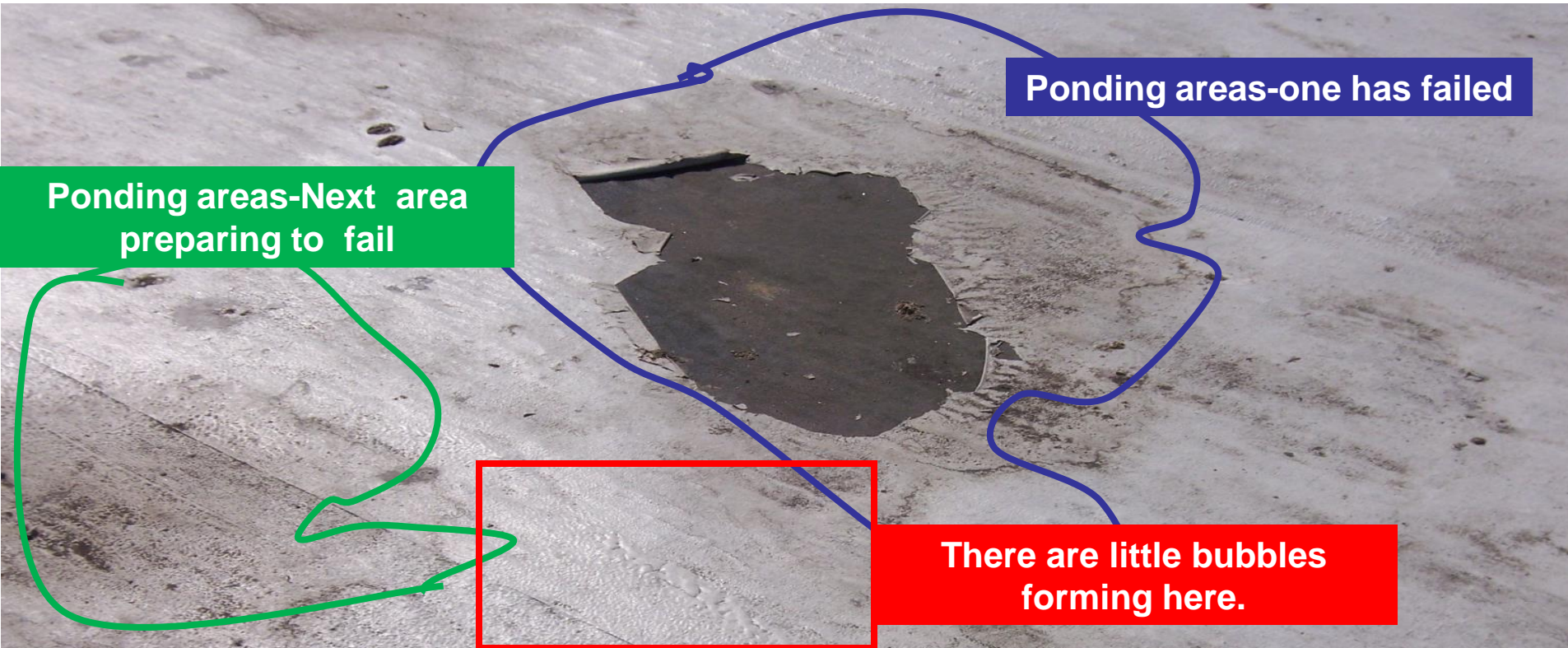


PROPERTY OWNER SAID THIS ROOF WAS 10 MONTHS OLD.





**DON'T LET THIS HAPPEN TO YOU!**  
NOT ALL COATINGS ARE CREATED EQUAL *BE SURE WITH*



This is a popular inexpensive coating system. An asphaltic bentonite clay enhanced emulsion with an acrylic top coat is used in areas water ponds on a flat roof. The white reflective coating failed exposing the underlying “waterproof” materials. Moisture vapor (water) has penetrated the coating. The sun heats up the moisture as it evaporates (called gassing off) the coating is pushed up forming a bubble that splits open exposing the black “waterproof” asphalt emulsion. This is not the right system for a flat roof.



**DON'T LET THIS HAPPEN TO YOU!**  
NOT ALL COATINGS ARE CREATED EQUAL *BE SURE WITH*



After time the UV Rays and heat breaks down the Bentonite Clay Emulsion, which is the waterproofing in this system. In a short period of time the Emulsion deteriorates and turns into a dirt like substance. The other fact is all the energy saving properties are lost once the white coating is removed. Even with fabric installed we have seen dozens of failures of this system on flat roofs.



Not all roofs can be saved with SureCoat, BUT Most can it depends on condition of the substrate and existing roofing materials. It will take more coating per square than the same system in better condition. Typical systems.



***The SureCoat Roof System*** has energy saving properties that, according to independent test done at Lawrence Berkeley Laboratory, will lower the demand on the HVAC system 11-14%, resulting in **savings of up to 30%-40% on cooling costs.** ***The SureCoat Roof System*** works to keep the building cooler in the summer by emitting 93% of the heat back into the atmosphere, not allowing the heat to pass through the roof into the building. ***The SureCoat Roof System*** also reflects up to 91% of the sun's rays including long UV rays that accelerate deterioration.



Actual readings with a laser thermometer on a Metal Building in Pomona, California.  
The ambient air temperature was about 70 degrees.



On an approximately 88 degree day in the City of Fullerton (Southern California) the uncoated BUR roof was 141.4 degrees Fahrenheit; the area with the SureCoat Roof Reconditioning System was 97.1 degrees. The SureCoat Roof is over 44 degrees cooler. This will reduce the interior temperature and greatly reduce the cooling demand, and cooling costs. SureCoat will emit most of the heat leaving only 7% (approximately) for possible heat transfer and radiant heat effect.





## Coverage Rates:

### Most 10 Year Roof Systems Require a Minimum of :

- 4 gals. per SQ=125 SF per 5 gal. pail
- *Metal Roofs*: 2 ½ -3 gals. per SQ=167 SF per 5 gal. pail
- *Tar & Gravel Roofs*: 5-6 gals. per SQ at 5 gals. 1 pail covers 100 SF and at 6 gals.=83 SF per 5 gal. pail
- *A Cool Roof Conversion*: a minimum of 2 gals. per SQ  
5 gal. pail =250SF
- **Note**: 250 SF per 5 gal pail is also the same coverage area that a 5 gal. pail will do when applied as the basecoat of a warranted 4 gal.10 year SureCoat Roof System Other types of systems and application rates can be found in the Application Guide. Rough, damaged and checkered roofs will need more material to fill in voids- 10% is recommended for prep work, overage, and waste.





Staging the material on roof helps keep the installers working smoothly and gives them direction as to the correct coverage rate. On a cap sheet roof 1-5 gallon pail will cover 250 SF at 2 gallons per square to embed the fabric in. The topcoat will take another 5 gallon pail to cover 250 SF at another 2 gallons per square for a finished system of 4 gallons per square. A 5 gallon pail will do 125 SF complete; both base and top coat.





Laying out the material, staging it, also saves time for the installers. They can be more productive when they don't have to stop and get more material from a stockpile. It isn't good to put all the weight of the coating in one spot. On the roof the SureCoat Roof System is extremely light adding only 33lbs for a 10 year system per SQ (100 SF) and a little more than 41lbs for a 20 yr. system. It is a very light system that is completely waterproof.





## Calculate Dry Film Thickness of Coatings to Determine Cost

How much material left is on the roof when it is dry? That is what you really paid for. SureCoat leaves 10.426 mils dry film thickness per gallon per 100 SF.

### How do you figure it out?

Sunlight Reflection	92 %
ASTM C 1549	>88 %
Emissivity	86 %
Viscosity D2196 Brookfield 73.4°	32,000 cps
D562 KU 73.4°	110 KU
Volume Solids (ASTM D2697)	>65%
Weight Solids (ASTM D1644)	>78%
Tensile Strength @ 73°F Minimum	473 psi
ASTM E108 (Class A) UL Rating Equivalent	Pass
ASTM E84 flame spread	Pass
TT-C555B Wind driven rain	Pass
ASTM-D6083	Conforms
<b>Temperature Range</b>	
Application Degree Fahrenheit	50°/120° F
Service Degree Fahrenheit	0°/180° F
VOC	1 G/L
Weight per Gallon (approximate)	10.6 lbs.
<b>Elongation, ASTM D-4212</b>	
At 73°F	400%
At 32°F	160%
Low Temperature flexibility D522	Pass Mandrel
<b>Water Vapor ASTM E-96</b>	
Permeability @ (21 mils)	.0025 perms
Dry Time (at min. 75 °F ambient temperature)	
To Touch	1-3 Hours
Throughout	24-48 Hours
Coverage Per Gallon (10.5 dry mils) 100 sq. ft. (approximate)	

### Look at SOLIDS BY VOLUME

**Do not use solids by weight; this is to figure out something entirely different**

**Formula is ALWAYS the same for any coating or paint. One gallon of all paints & coatings are 16.04 mils when they are wet. The solids by volume is what is left behind when the water evaporates, resins harden and it's dry.**

- **1604 X .65 (SBV)=1042.60**
- **Divide by 100 SF=10.426 mils DFT**
- **See how many gals in the 5 gal pail some have 4.75gals**
- **Multiply mils DFT by number of gallons**
- **5 X 10.426=52.13 mils**
- **Divide by amount paid by this number that is what you paid for each mil**





The SureCoat and Poly Mesh should be applied up the side of the penetration or curb at least 2"-4" and out into the roof field 4"-10" and larger penetration as much as 18" to 24"

wrap & overlap corners 3-4" in both directions







**FOR REPAIRS OR AS PREP WORK FOR FULL RESTORATION SYSTEM**



Over lap seams 2"-3" (inches). There are red lines on the Poly Mesh fabric as guides. Be sure there is plenty of coating on the edge of the fabric you are lapping over.







Coating and fabric is ran up under the metal so that water will flow onto the roof. That is always the goal. Run the fabric out into the field so the 42" sheets can over lap the prep work fabric. This will secure that joint by making it extremely strong. Between the elongation and the strength, thermal cycle movement cannot split open the penetration in the roof deck.







UNDER FLASHING AND OUT INTO ROOF  
FIELD FOR STRENGTH







*The SureCoat Roof System* can be used for types of repairs on waterways, drains, penetrations, flashings, equipment curbs and ponding areas.





Penetration made to an existing SureCoat Roof are made the same way the roof is prepared for the full SureCoat Roof System. Cleaning the area with SureSkrub and using the Poly Mesh Fabric embedded in between two layers of the SureCoat Roof System Coating. It has continuous bonding properties and will not leave a cold joint or delaminate in the future. The bond gets tighter and stronger with time.





## **71,000 SF in Bozeman Montana**

**The dirt has to be removed-sweeping, vacuuming, power washing, using SureSkrub to etch and clean the roof so that coating can bond to the roof membrane.**

**Made for freeze-thaw conditions once cured; cannot freeze while a liquid and used after it defrosts. This will cause failures down the road as it interferes with the integrity of the cured material. This is typical of all coatings.**





A 71,000 square foot roof reconditioned with *The SureCoat Roof System* in Bozeman, Montana. The climatic conditions require a material that can maintain elastomeric qualities in freeze-thaw conditions and that can hold up to ponding water for long periods of time.



**Rudell Designs: (No Before Pictures Available)**

System installed approximately 10 -11 years ago. (Picture taken in Nov. 2007)

The project is approximately 12,000 square feet.

The contractor is unknown and I believe no longer in business, SureCoat Systems will still honor the renewable warranty if the maintenance application is installed by a certified SCRS contractor.

The roof is a barrel design with drains, waterways and crickets that pond water. It consists of a combination roof of SPF and rolled cap sheet BUR. The original application was done in a light gray color as the City of Torrance did not want a white roof on the property. At that time there was not a Cool Roof Rating Counsel or any Title 24 requirements in place. They chose the roof to protect and maximize the life of the SPF (foam) roof system as well as protect the foam roof from water and UV radiation damage. The inside of this building has been built out without any space for attic insulation. The foam roof and the coating provide the “insulation” for this building.



**Rudell Designs: After Maintenance application to extend Warranty**

System installed approximately 11 years ago.

The original contractor is no longer in business. SureCoat Systems honored the renewable warranty with the maintenance application that was installed by JemStar Construction Services in October 2009.

The project is approximately 12,000 square feet.

The color is light gray. Tinting the white membrane can be done without losing any thermal emissivity, which keeps the heat out of the roof to lower cooling costs. The reflectivity is unaffected in light colors and only slightly reduced in medium colors.

The warranty has been extended to October 2019





Approximately 8-9 years old in 2007; renewed warranty in 2009  
Has a renewable warranty until 2019



No Drains around edges of roof; there are two in the front. The water ponds in the waterways until it evaporates.





The only drains on this roof are in the front of the roof. This roof hasn't been cleaned prior to the 2009 restoration and is light gray. No tears, cracks or failures in the SureCoat Roof.



SureCoat adheres and waterproofs to all types of building materials. The metal equipment screen was starting to rust so it was also coated to prevent it from further rust.





## Anaheim Methodist Church-Before





The church could not afford a tear off. The results for longevity with cool roof cap sheet materials is poor. This was used by the YMCA as day care at the time and needed energy savings. With an aging congregation, the needed a leak free warranty. After the repairs were made, one company stepped up...





**Anaheim Methodist Church:**

2045 W. Ball Road, Anaheim, CA 92804

Installed approximately 2007

The contractor is JemStar Construction

The project is approximately 7,000 square feet

Consisting of a modified BUR with a silver coating. The roof was in bad condition. This roof has a 10 year labor and material warranty that is renewable in the 9<sup>th</sup> year, maintenance application must take place before end of the 10<sup>th</sup> year. They have completed several partials on other buildings of the church. They currently have two more roofs scheduled for reconditioning this year.





Approximately 5 years later; the roof is still white, no blisters, no peeling, and no service issues. The ponding is evident throughout the roof field. Using the right products is most important on a flat roof. **SureCoat™** is the only product with a manufacturer's warranty covering ponding conditions on a flat roof. With extremely low Volatile Organic Compounds and a solid white core of waterproofing material, **SureCoat™** is the answer for flat roofs, especially in Southern California where the AQMD VOC requirement for coatings is the less than 50 parts per liter. FYI-This roof has never been cleaned.





The Anaheim Methodist Church at 7 years old during routine annual Roof Maintenance-this roof has never been cleaned- it is dirty and ponds a great deal but has no failures on it.



## Wine House-Before





## **The Wine House (Restaurant-Wine Cellar):**

2311 Cotner Avenue, Los Angeles, CA 90064

System installed in 2007

The General Contractor is Chewning Construction

The project is approximately 6,800 square feet

Consisting of a BUR system. This roof has a 10 year labor and material warranty that is renewable. This roof is 3 stories high with entry on the second level. There is a lot of equipment on the roof that would need to be removed and replaced with a crane if a tear off and new roof were properly installed. A cellular satellite as well as restaurant equipment, HVAC units, duct work could not be shut down or removed without interrupting cellular phone service and the business operations. A refrigerated truck would have to be brought in to keep the wine at various temperatures. This roof had continuous leaks every year for the last 17 years. The SCRS solved all of those issues and was installed without moving or disrupting any equipment on the roof.



## Bose Properties-Before





**Bose Properties Commercial Buildings:**

1734 Sequoia & 240 Grove, Orange, CA 92867

System installed approximately 2007

The contractor is California Lifetime Coatings

The project is approximately 8,000 square feet

Consisting of a modified BUR. This roofs has a 12 year labor and material warranty that is renewable in the 11<sup>th</sup> year, maintenance application must take place before end of the 12<sup>th</sup> year.





This is a high rise in San Francisco, CA. Aside from the fact this is a historical building (built 1938) and the owner was concerned that other roofing companies told them a tear-off would disturb the architectural ceilings. First, there was probably asbestos in the roof materials. Secondly, there is no room for equipment to do a tear-off or a way to get the old materials down the side of the building. Several contractor's walked away from the project. A **SureCoat Systems'** certified contractor took on the project even though it was about 200 miles away from his normal area.





This was the condition of the roof at 311 California Street prior to [he SureCoat Roof System](#) installation. It was an old roof with so many issues including asbestos, access, condition, working room on the roof. The owner was discouraged and extremely frustrated. Their VP of Development had worked with SureCoat Systems on other projects and knew we could help them with product and finding an experienced qualified contractor to do an excellent installation on this difficult project





The problem was solved with ***The SureCoat Roof System***. The roof was cleaned, repaired, and coated. The fabric in the roof on the initial application provides the “skeleton” for a lifetime system that can be renewed at the end of each 10-year period for as long as this property is in use. All of this was accomplished without a tear-off, tenant disruption, equipment removal or special equipment. The working space was very limited (before new OSHA laws). There wouldn't be any working area left if we had to set up gates and tie offs. Fortunately renewals will be cleaning and a topcoat and that can be done fairly easily with gates and tie offs. They never have to worry about this roof being a tear off project-it is maintenance only moving forward.







Remove Gravel; Spud Embedded Gravel to Level  
Clean with SureSkrub- our Bio Degradable Cleaner







Partial due to Budget-stopped leaks-instead of wasted repair







A year later added on to system for a fully 10 year renewable warranty. Customer got 11 years out of roof budget by doing repair with SureCoat instead of something else.







## A Finished SureCoat Cool Roof System 10-Year Renewable Pond-Proof Warranty



09/21/2009





A year and three months later still bright white  
emitting 93% of the heat and keeping the chapel cool



12/31/2010

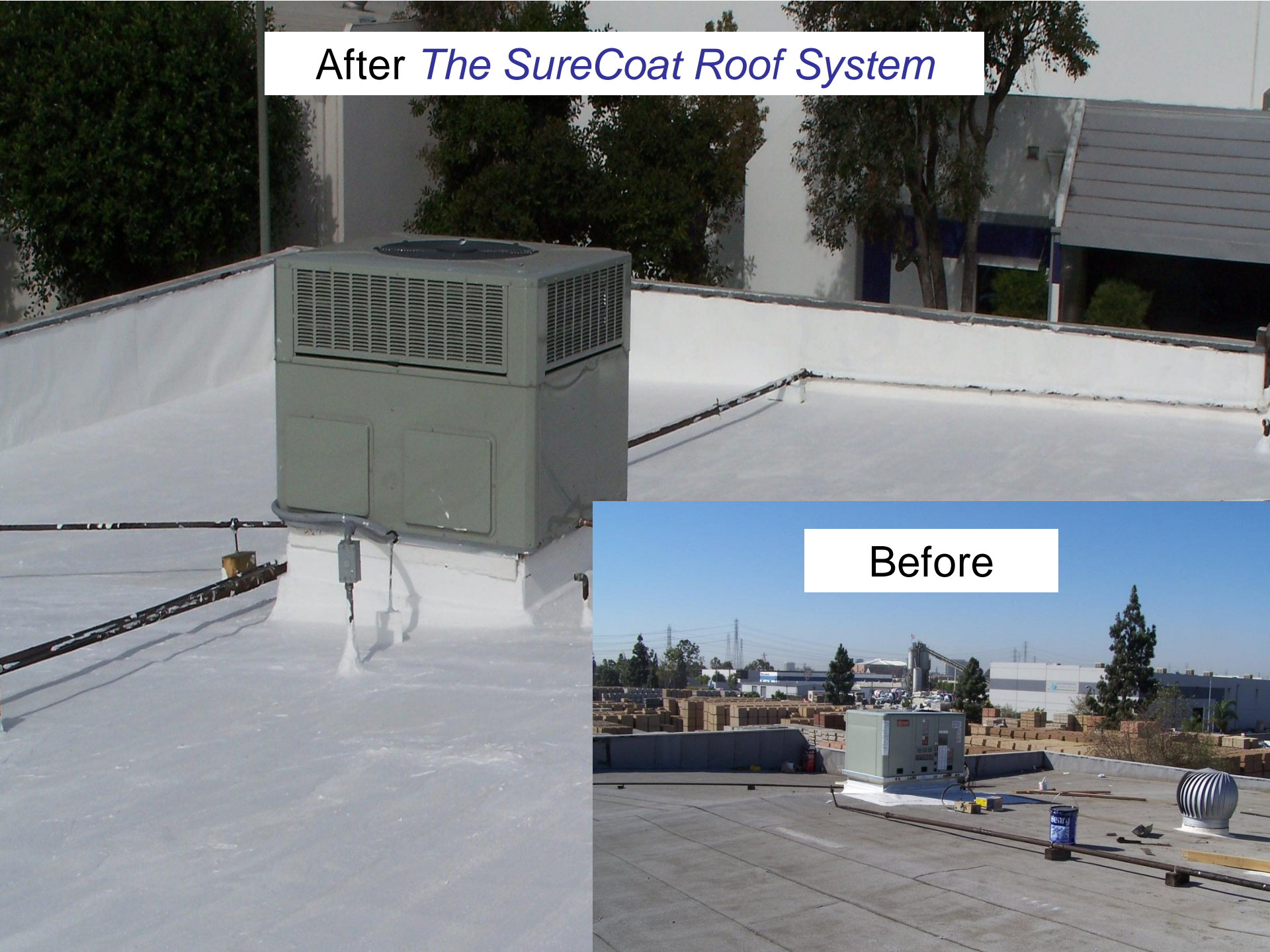




12/31/2010



After *The SureCoat Roof System*



Before





# 11,000 Sq. Ft low slope Metal Roof in Pomona, CA –Sheet Metal Mfg. Facility





The first step is to clean the roof with SureKlean. SureKlean (SK) is an environmentally friendly bio degradable etching detergent that will remove UV degradation, rust, mold, mildew, grease, pollutants etc. and can be washed down the drain. It comes in 5 gallon pails and can be diluted. It works fantastic full strength but it is harder to rinse the residue off. The roof has to be rinsed well or the SK residue will prohibit adhesion

Pomona, CA







Repair or replace any damaged panels, fasteners or flashings. SureCoat will adhere to all types of building materials including all types of metal including sheet metal. SureCoat protects duct work, HVAC plenums, HVAC pans, metal flashings including wall cap flashings, vents and metal electrical conduit tubing.







The scale rust wasn't too heavy on this roof; if it had been then a rust inhibitor should be used. Most cases it isn't necessary. SureSkrub and a Scotch brite pad and stiff broom should be used to remove all loose dirt, rust, and debris. Be sure to rinse all the SureSkrub off. The roof must be clean and dry before starting the SureCoat application.







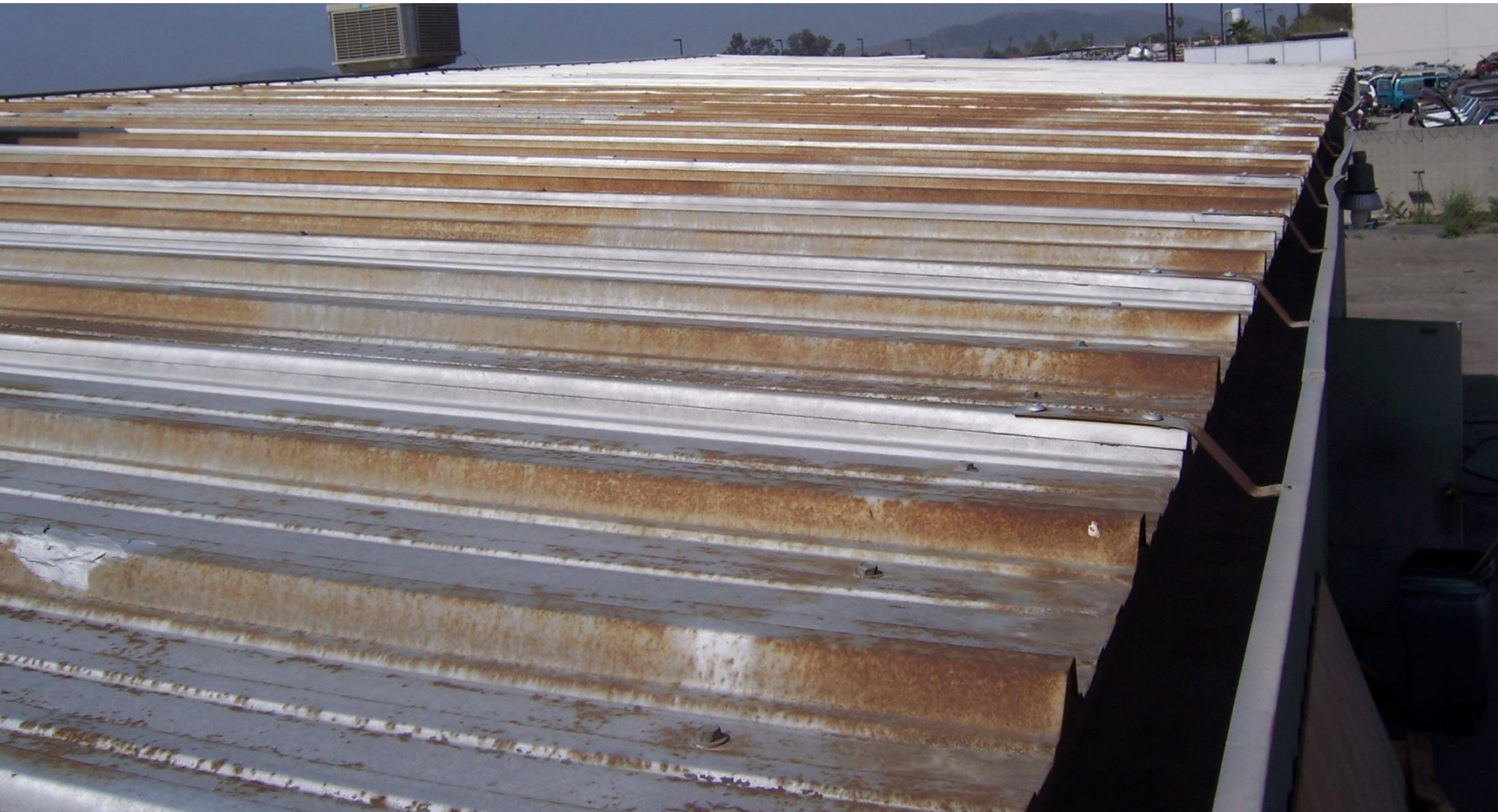
The end of the panels should be coated about a ½" on underneath side at the ends when it is exposed. That will prevent any capillary action for happening. That will prevent the coating from lifting on the ends and taking in water. It can be done with the prep work with a paint brush.







**Clean dirt & loose rust off by power washing and scrub with a scotch-brite type pad. Do not use steel wool.**







**SURECOAT**  
SYSTEMS

**Pre-coat all fasteners, penetrations and seams prior to final SureCoat Roof System material installation. The SureCoat coating is used as the trowel or butter grade also-one product throughout the system. Use fabric at penetrations that will allow flush adhesion to the roof surface. No voids should be left between the coating and the substrate.**







Metal Roofs usually only need fabric at laps, seams, joints, penetrations, curbs, skylights, and repaired areas. The field of the panels typically don't need fabric unless it is a flat roof with no standing seams or if the seams are leaking. Rusted or leaking batons should have fabric embedded in the coating over the seams. The 4" fabric is usually best on batons. Pitched roofs with vertical seams over lapped 16"-18" don't need fabric.





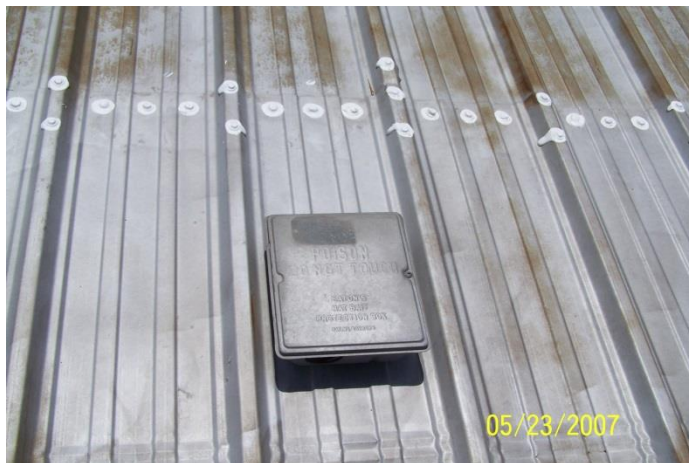
All penetrations and lap joints should have a piece of polyester fabric embedded in between 2 layers of the SureCoat Roof System coating. All Penetrations, curbs and seams should have a 3 ply application around and across them before the base coat is applied. The fabric should extend about 6-12" into the roof field.







All missing fasteners need to be replaced; loose fasteners should be tightened; and a dab of coating placed on each fastener.





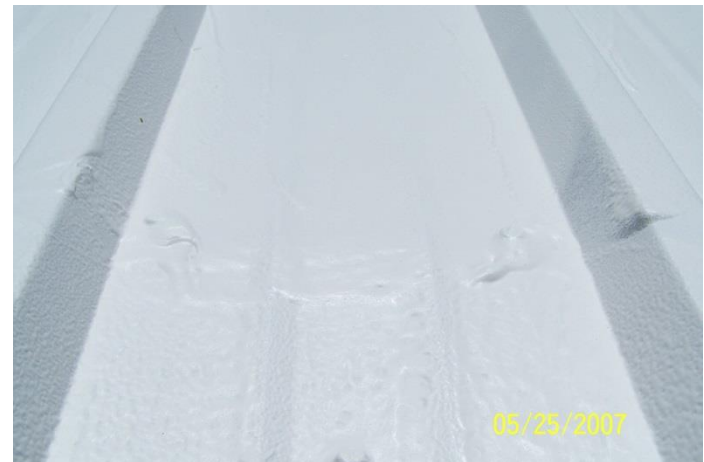
A dollop of coating is put on the fasteners-instead of butyl caps. This can be done using a thumb over the end of a ½" piece of PVC pipe using it like a straw and lifting your finger to release a blob, dollop, glob or large drop- of coating on the fasteners. Some use a plastic bottle that they squeeze a onto the fastener.







This is what a SureCoat Roof System application over a standing seam metal roof deck should look like upon completion.





SureCoat will adhere to the fiberglass lenses. If you want to use Shingle Saver to restore them so they dry clear for the sunlight to come through that is an option. SureCoat will adhere to fiberglass, if you don't want to coat them clean up any overspray immediately. SureCoat is water clean up until it is cured. While it is "green" it can be peeled off of most surfaces but don't rely on that be careful.







SureCoat will adhere to Kynar which is a coating that metal roofs are often protected with at manufacturing. Other coatings will not fully adhere to it. The only material SureCoat doesn't adhere to is silicone. But silicone doesn't always adhere to silicone. That is because silicone degrades severely because it isn't UV stable. Cleaning the degraded material and dirt out of it is difficult. Those two things inhibit full adhesion.. SureCoat doesn't have those issues; and it is UV stable with continuous bonding properties.





Completed with 10 year warranty. Customer didn't know what the cost savings was but said it is about 20 degrees cooler inside since installing the SureCoat Roof.

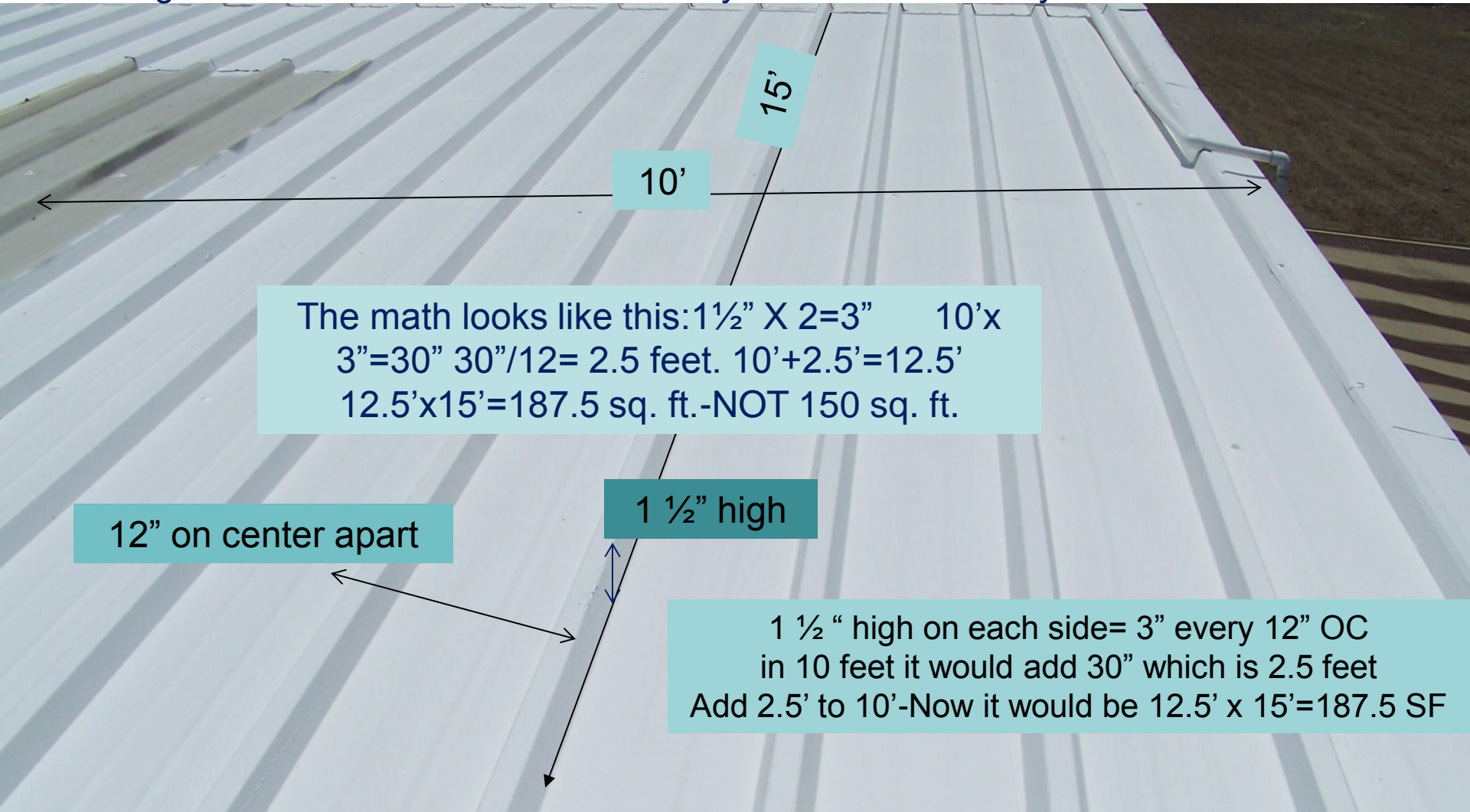


05/25/2007





When calculating your material on standing seam roofs, remember to do your stretch outs based on the height and quantity of each ridge and how far apart they are. Add the additional area to the straight across measurement. For example if you have a 1 ½" ridge adding 3" for each will give you enough material to coat the inside and outside of each ridge in addition to the flat area. If they are 12" on center you add 3" for each foot.



The math looks like this:  $1\frac{1}{2}" \times 2 = 3"$      $10' \times 3" = 30"$   $30" / 12 = 2.5$  feet.  $10' + 2.5' = 12.5'$   
 $12.5' \times 15' = 187.5$  sq. ft. - NOT 150 sq. ft.

1 ½" high

12" on center apart

1 ½ " high on each side = 3" every 12" OC  
in 10 feet it would add 30" which is 2.5 feet  
Add 2.5' to 10' - Now it would be 12.5' x 15' = 187.5 SF



This is what your customer should get-lowered cooling costs and more comfortable space with a lower demand on the HVAC system. The ambient air temperature was 70 degrees Fahrenheit on this this day. The property owner said six months after the job was complete that there was about a 20°F difference inside. This is a sheet metal manufacturing facility in Pomona, a desert area of Southern CA. that is hot in summer



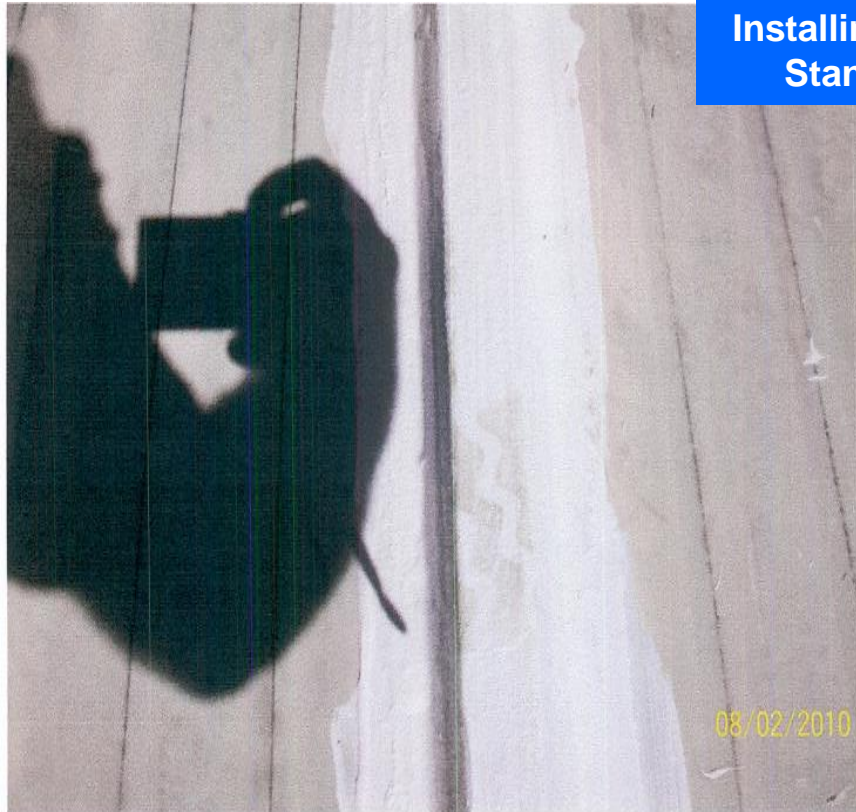




This is another roof in Northern California. The Architect extended the bid date upon hearing about SureCoat for the Rocklin Transportation Center. He wanted the school district to have a 15 year renewable cool roof warranty. This project did have fabric installed on the seams. This was done instead of pre-coating the seams.

### Prep Work

#### Installing Fabric in the Standing Seams





Examples of an unacceptable application; but because it is a SureCoat Roof it can easily and quickly be repaired with the coating, a paint brush and strip of fabric. After the job is complete the project should be walked. Any areas that need to be touched up can, without having heat welders or adhesives. It is almost impossible to mess up an installation if there is enough coating under the fabric and the roof is clean and dry.

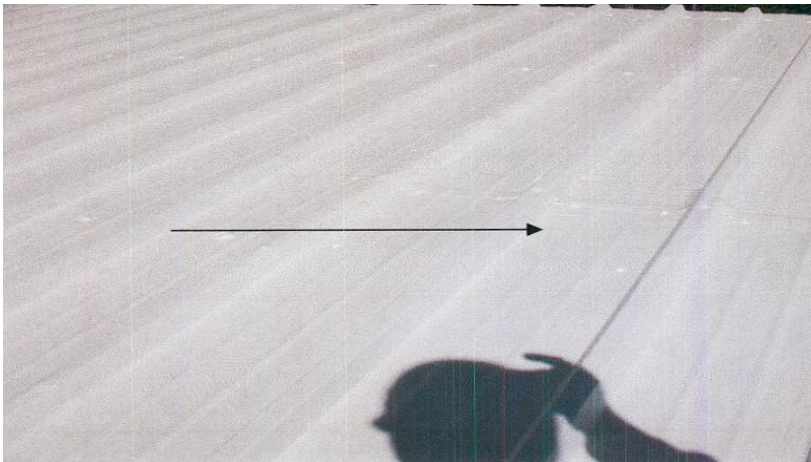


Because of the epoxy resins that give the SureCoat coating amazing adhesion SureCoat's adhesion is stronger than most primers. We use high end resins in our material that isn't found in most primers because of the cost.





These are not great or clear pictures, but this is what the RTA project looked like at completion using the SureCoat Roof System. It was uniform; no tenting or voids under the fabric any areas were touched up. It is a heavy application because they chose a 15 year renewable warranty.





Approximately 117,000 Sq. Ft. Butler Roofs  
Oakridge High School, El Dorado Hills, CA.  
15-year Labor and Material Warranty

**Before**



**After**







## Oakridge HS-El Dorado Hills CA

After Pictures of 14 Metal Roofs-15 year labor and material warranty issued for this project. (can see other roofs in distance) Customer did half the portables each of following summers and in 2013 added onto the gym. They used SureCoat on the roofs and walls in Light Tan. In Light Tan SureCoat is still Title 24 compliant and a cool roof emitting 93% of the heat and still has 78% reflectivity.





SureCoat has a very high solid content that results in a thick dry membrane that is waterproof. Vertical Panels can be done in 1-2 passes applying 3-4 gallons per square without running.







This vertical panel is 39.5 mils dry film thickness which is almost 4 gallons per square. It was applied in 2 passes. Each gallon of SureCoat dries at 10.426 mils in 100 sq. ft. Area.





SureCoat is a single component waterproof membrane that is self flashing, self adhered, self priming, and adheres to any roof substrate to form a monolithic membrane that is impervious to ponding water.







SureCoat can be Tinted and used on Vertical Walls  
Also the product used is called StrucSureCoat



04/22/2010





The SureCoat Roof System and Wall System was installed on this Metal Building across the street from our Factory in Wilmington CA.







It comes in about 21 Standard Wall Colors and is great for Metal Mansards now that all paint in Southern CA is water based with low VOC and only last 2-4 years at best.



04/30/2010





This is what regular exterior paint looked like after 2 years. In 2002 the VOC content in coatings were reduced to less than 50 grams per liter and reformulation was mandatory in the So. CA AQMD area. SureCoat is not flammable and has not offensive odor and can be installed without disturbing tenants; it is great for hospital, hotels, shopping centers, large multi tenant businesses, and schools.

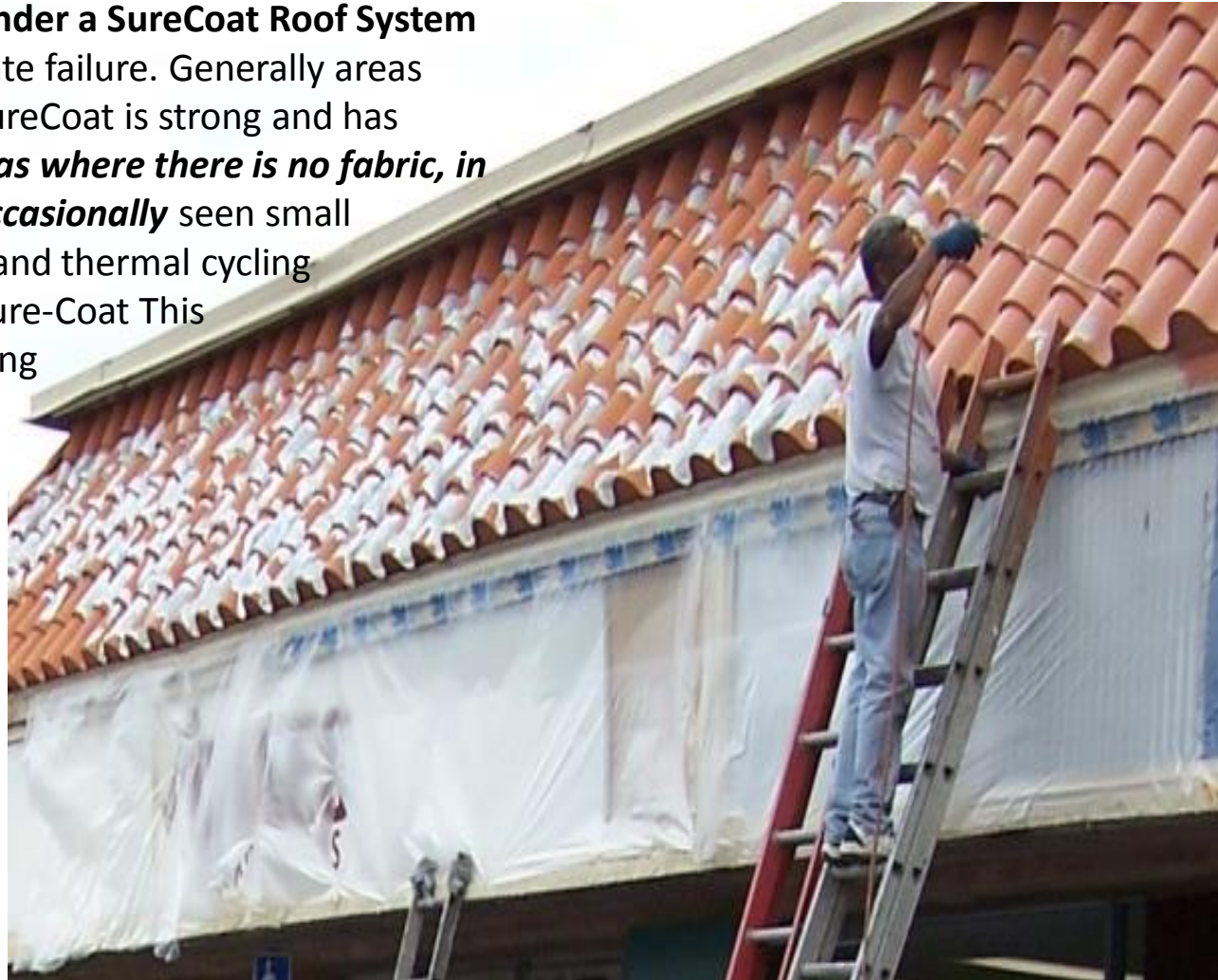






The majority of the cost of painting these mansards is labor. This job was especially time consuming due to the shape of the metal panels being that of clay tile. The coating is usually applied over metal roofs using an airless sprayer.

If there is an **aftermarket** coating **under a SureCoat Roof System** and it delaminates That is a substrate failure. Generally areas with fabric will bridge it, because SureCoat is strong and has elongation nothing happens. ***In areas where there is no fabric, in the field of metal roofs,*** we have ***occasionally*** seen small splits where heat under the metal and thermal cycling caused the paint to lift **under** the Sure-Coat This is easy to touch up. Removing existing coatings so SureCoat can attach directly to the roof surface is ideal but not always possible like in this case. Out of millions of square feet we have only seen it a few times with **aftermarket coatings, not factory applied finishes.** We just want you to have the best information possible based on experience.





After- SureCoat Roof System with top coat tinted to look like Terra Cotta tile. This roof mansard has a 10 year warranty. The cost of labor to prep the shingles for coating was a significant portion of cost of the project. That will never have to be repeated in the future. When it is time to renew it, the mansards will be cleaned with SureSkrub, a top coat applied, and the warranty renewed for another 10 yrs. **Note: as of Aug.2014 this roof mansard still looks beautiful without any blisters or peeling.**







Rusted Metal needs to be cleaned with SureSkrub and a scotch brite pad. Do not use steel wool as it will put pinholes in the coating and leave spots of rust on the coating because of that. A rust inhibitor should be used if there is scale rust in the metal prior to applying the SureCoat. Surface rust can usually just be cleaned using the scotch brite pad and SureSkrub





SureCoat will stop water and air from getting to the metal which will stop further rusting. The oxidation process is stopped when air and moisture are eliminated from coming in contact with metal. This helps save hundreds sometimes thousands of dollars in sheet metal replacement. Small holes can be repaired by screwing in a piece of sheet metal. Then use an additional layer of SureCoat and Poly Mesh over the repair prior to coating the whole area.







This fan is an approximately \$6,000 new. For a few hundred it was saved and protected now for future damage. The penetrations and equipment on the roof are now self-flashed into the monolithic roof membrane. The joint for the cut in the roof deck is sealed and will no longer split open from thermal cycle movement. It is now part of the monolithic roof membrane. The sheet metal won't rust through and won't need to be replaced.





After spending \$85,000 with several roofing contractors on repairs to unsuccessfully get her 4 roofs from leaking this customer opted for the SureCoat Roof System. Not only did it stop the leaks but also saved in cooling costs. Having the hundreds of lineal feet of sheet metal ducts coated and sealed added to that. SureCoat emits 93% of the heat so the conditioned air doesn't get reheated as it cycles. Also in winter the conditioned air doesn't escape through seams. The wooden skylight was framed with poly mesh and coated to seal where glazing had failed.







Roof mount HVAC exposed ducts protected and waterproofed with the SureCoat Roof System. Excellent protection on plenums and square ducts where water ponds and a hole will often rust through the sheet metal. SureCoat can also repair those that have already rusted through with a piece of metal and an application of SureCoat and Poly Mesh.

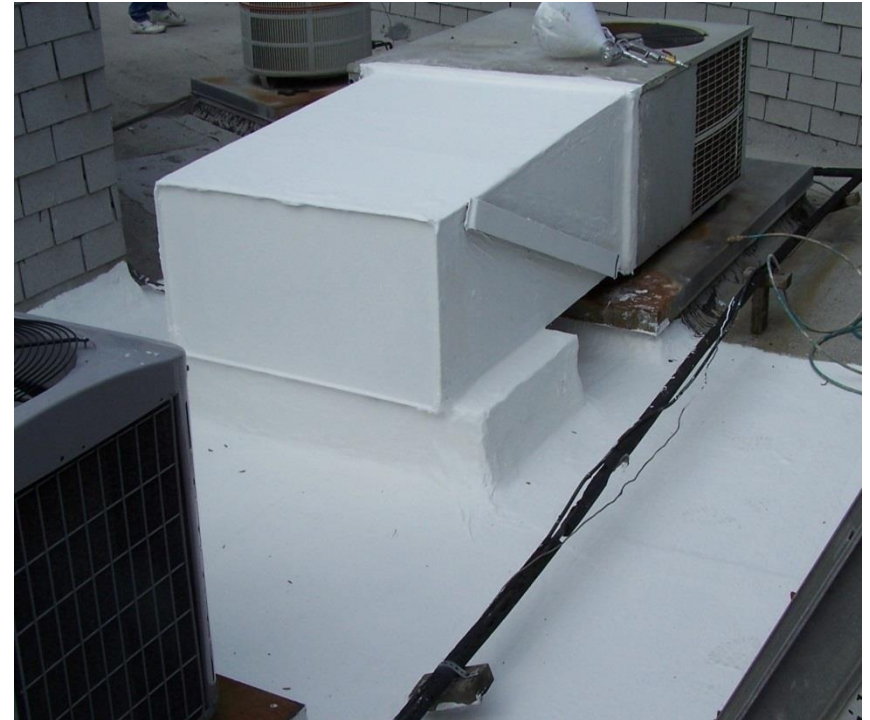




The roof was leaking under this plenum. SureCoat was used to do the repair. A few years later a full SureCoat Roof System was installed. This money spent on this repair was not wasted but instead intergraded into the new system. SureCoat allows owners to invest repair dollars toward a future warranted roof system making the best use of roof budgets. Wasting money on temporary mastic repairs that last 6 months to a year are over. Mastic is never needed on a SureCoat Roof. All full systems have renewable warranties that cover leaks in ponds on flat roofs.



**BEFORE SURECOAT**



**AFTER SURECOAT**





**BEFORE**



**AFTER**





65 Squares of BUR with Rolled Cap Sheet leaking severely.



09/11/2011





09/11/2011





Asbestos Mastic that cannot be scraped when dry. We didn't bother it to avoid abatement. Instead it was cleaned with SureSkrub with lots of water. Then flashed in with SureCoat and Poly Mesh to seal it permanently and encapsulate the asbestos.

FYI-Asbestos mastic will be a different color than typical black mastics.







More asbestos mastic that cannot be scraped when dry. It was cleaned with SureSkrub with lots of water. The larger cracks were filled in with an elastomeric caulking and SureCoat. A layer of SureCoat and Poly Mesh were applied prior to installing the full system. This area has a double layer since it was damaged. SureCoat can be used to repair roofs also before the system is installed. This asbestos is also permanently encapsulated so that it will never be air borne.







The larger cracks were filled in with an elastomeric caulking and SureCoat. A layer of SureCoat and Poly Mesh were applied prior to installing the full system. Tearing off this roof would have cost significantly more because an asbestos abatement company would have to do the roof material removal which is very expensive and extensive. By permanently encapsulated it instead so that it never becomes air borne is an alternative.







Not much of scupper left. The down spout was laying on the ground anyway. There was little water actually making it out of this hole anyway. This is a good example of what ponding water will do to a roof over time. The SureCoat Roof System is impervious to ponding water so it will not leak. Even SureCoat will receive more wear and experience more movement in ponds. An extra layer of coating and fabric is a good idea in an area that never gets a break from ponding water. It will help the roof wear uniform with the rest of the SureCoat Roof.

Ponding is water that sits on the roof for 48 hrs. after it stops raining.





More splits in the cap sheet on the parapet walls. This was repaired by fastening a new layer of cap sheet over the walls old materials. The old repair now needs a new repair. SureCoat & Poly Mesh will fix this wall. It will last longer and provide better protection than if it was torn apart and new materials built up on it with new layer of cap sheet.







All of the penetration had mastic around them that was dried out and splitting. Mastic is a temporary repair that building owners have accepted as a “permanent” solution to leaking penetrations. It is wasted roof dollars as it doesn’t last and needs to be done annually. It will always dries out as it absorbs heat and UV rays. SureCoat can be used as a repair system and will last several years. The black roof around a SureCoat Repair will put stress on the cool UV stable SureCoat repair that never dries out, moves with thermal cycles, and can be intergraded into a full system later.





Wet mastic needs to be scraped off and cleaned with SureSkrub and agitation to remove all the oil residue that will inhibit adhesion of the SureCoat to the roof and the metal. After it has been cleaned and dry a 3 course of Poly Mesh embedded in SureCoat is applied to all penetrations, curbs and repair areas where mastic was.







Dried on Mastic should be chipped and scraped to remove all loose material. Then clean and scrub with SureSkrub. Apply a 3 course of SureCoat and Poly Mesh. Leaving loose and unstable mastics will cause the SureCoat to fail. The SureCoat will bond to the dried out mastic and when it comes off the roof so does the SureCoat. Apply SureCoat over stable roof materials only.





Failed acrylic-emulsion system that can be repaired with SureCoat. Cleaning this roof takes more time than other roofs. The failed acrylic needs to be peeled off and the degraded emulsion has to be scrubbed off using SureSkrub prior to applying the SureCoat System. This is why acrylics shouldn't be used on flat roofs that pond-NOT EVER. Property owners and contractors are getting wiser. Some just want to make a good profit and let the customer argue about the fine print that says areas that pond and fail are not covered. That is a waste of time and unprofitable for most. Acrylics are for reflecting UV and releasing heat NOT WATERPROOFING..



**SureCoat is UV stable and highly reflective and IS WATERPROOF THAT IS A MAJOR DIFFERENCE AND WHY SURECOAT CAN BE USED ON FLAT ROOFS AND NEVER LOOK LIKE THIS.**







**SURECOAT**  
SYSTEMS





**SURECOAT**  
SYSTEMS









**SURECOAT**  
SYSTEMS





# 65 Squares 10 year renewable SureCoat Roof System





09/11/2011





**SURECOAT**  
SYSTEMS





5 yrs. old BUR over  
Concrete Deck that leaks







































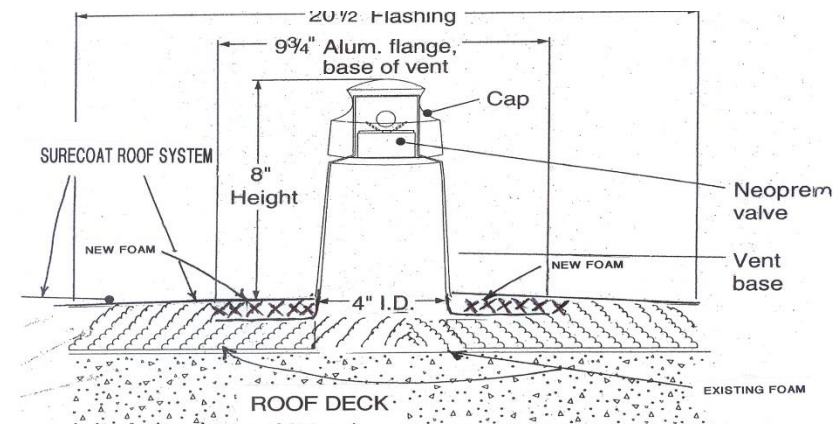




# Foam Restoration



Wet areas and damaged areas are cut out and then fill back in with foam from a 2 part closed cell foam pack. Then an additional layer of SureCoat and Poly Mesh are installed over the repair. If there a chance some areas may still be damp a one-way vent should be installed.





Partial Repairs adjacent to areas that may be wet may need a vent along the edge to help prevent moisture from migrating under the SureCoat Repair which could cause it to blister.







Ponding water has damaged this foam roof by causing the protective coating to blister and peel off. Exposing the foam to heat and UV rays has accelerated deterioration. Foam turns orange when it is rotted by the sun. The degraded foam has to be scraped off. Damaged Sprayed Polyurethane Foam can be repaired, restored, and protected using the SureCoat Roof System.





Using a SureCoat Roof Extender/ Repair System allows the building owner to make wise use of repair dollars on the roof for sustainable repairs that intergrade into a full warranted roof system at a later time that covers leaks in ponds;

**NO other coating system or manufacturer offers a written warranty covering leaks in ponds on flat roofs at NO additional cost.**

**They won't do it for any amount of Money-EVER!!!**







A Roof Extender on a Foam Roof System-Is when the worst areas of the roof are restored using The SureCoat Roof System to stop leaks, protect exposed foam from water intrusion and UV degradation. This gives the owner time to put a roof budget in place to finish the SureCoat Roof System to obtain the renewable warranty.





The SureCoat Restoration System can be finished by embedding special fabric between two layers of the SureCoat Roof Coating. A typical 10 year SureCoat Roof System is 50 mils dry mils thick







Adding onto the repaired and protected SureCoat Roof System areas several years later will not leave a cold joint or delaminate from new applications. They will bind to each other and form a monolithic waterproof, UV stable, cool roof membrane that can warranted as a full system when complete.





Before and After of perimeter of roof using The SureCoat Roof System as a Roof Extender in the worse areas. The worst areas are typically where the water ponds for the longest periods of time. These can be seen in the before pictures.



**BEFORE**



**AFTER**





At a later time the balance of the roof can be restored using The SureCoat Roof System. Once the roof is completed and tied into the previously applied SureCoat Roof System a manufacturer's warranty can be issued. This is the only system that a manufacturer allows to be done this way over time to achieve a real system warranty.

**AFTER**

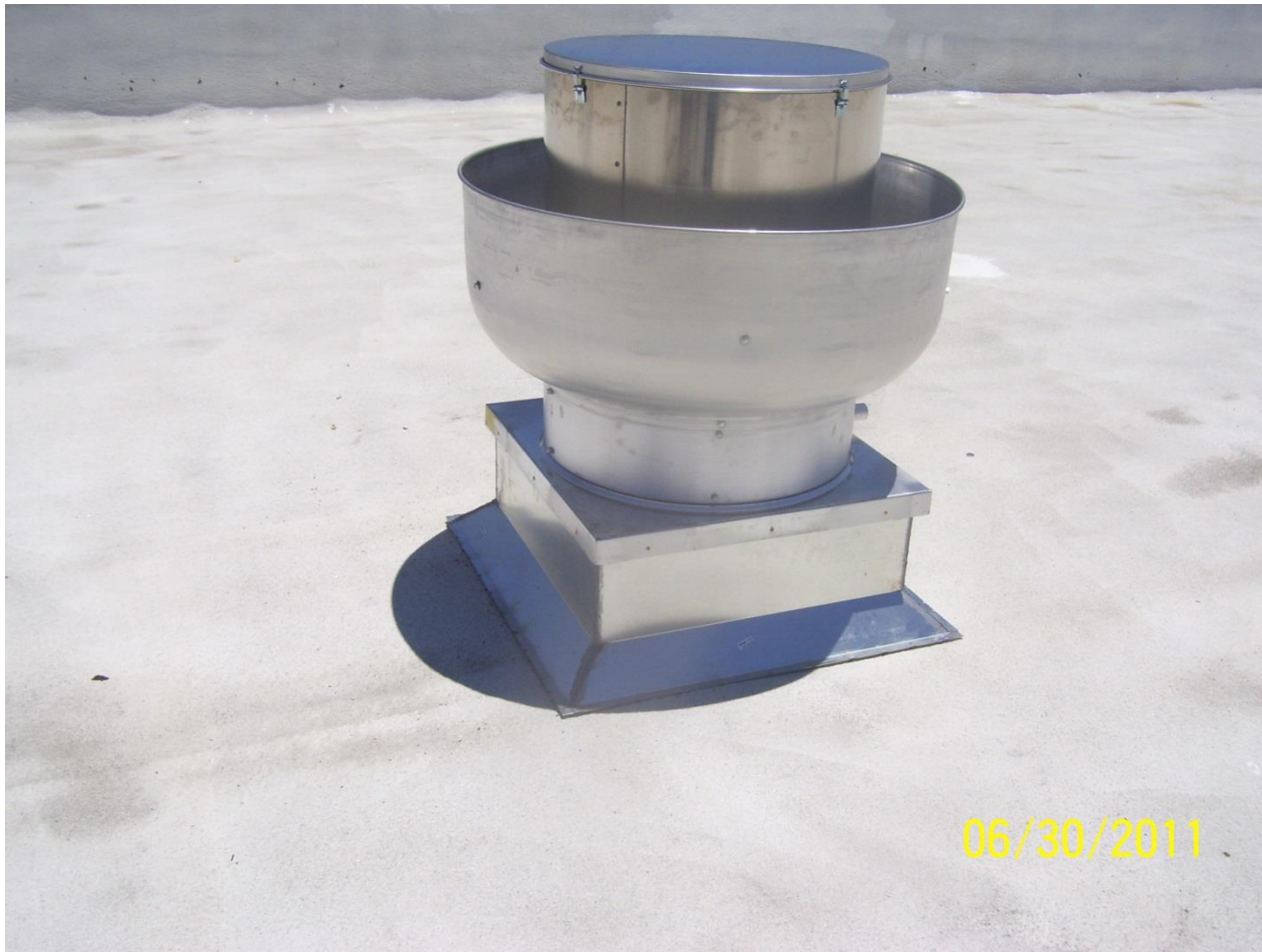
**BEFORE**









































Black mastics absorb heat, UV rays from the Sun and get extremely hot. This burns foam. Mastics do more damage and should NEVER be used over foam













During pictures of coating and fabric application of over Foam Roof



















The owner was elated. He got a 10 year renewable warranty that covers leaks in ponding areas on his very damaged foam roof for 1/3 the cost of the lowest bid. It is a Cool Roof with one of the highest aged ratings listed on the Cool Roof Rating's web site after 3 years old and dirty at 81% reflectivity and 93% thermal emittance.





07/23/2007



BEFORE

07/23/2007



AFTER





BEFORE

07/23/2007





AFTER



12/05/2008





BEFORE

Under the Pavers

07/23/2007

07/23/2007









Recent Photo of a Drain Area-NO Failures  
after 3 years of constant ponding

AFTER 3 YRS  
LATER



11/09/2010



These are two additional solar systems installed over the SureCoat Roof System that was used to restore a 14 year old Hypalon roof. There are no failures anywhere on 134,000 SF of the SureCoat Roof System. Currently there are four different types of solar systems installed on several roofs.







This is a solar system that was installed about in 2008-2009 over the SureCoat Roof System. This SureCoat Roof System has a 15 year labor and material warranty which will likely out live the solar system's productive lifecycle. In July of 2014 the roof was walked and looked exactly like this and the solar system is currently producing well. It is a good match under solar.





This type of ponding water will void all types of Single Ply manufacturer's warranties. SureCoat is made to withstand ponding with a warranty that doesn't place limits on time, depth, or any other specific condition of ponding







This roof has crickets built into it but the rings on the drains allow it to pond for long periods of time. All flat roofs pond water in some areas for a period of time. The roof system the AQMD required had to be environmentally responsible, low VOC content, contain no black emulsions, had to offer at least a 15 year warranty covering peeling, etc., and could not have any mechanical fasteners penetrating the roof deck. This eliminated most single ply and coating systems. No one could come up with a comparable product or system with acceptable testing results





The SureCoat Roof System is unaffected by ponding water. These ponds last 2-6 weeks after it stops raining and can be up to 8 feet long and 4-5 feet wide. This roof is about 6 years old with zero failures. All the drains look like this.





8-year old worn and leaking TPO roof repaired with the SureCoat Roof System.  
These failures were not covered by the TPO manufacturer's warranty  
because the roof has ponding water.





The gray areas are where the white membrane is wearing off exposing the core layers of the membrane. This is failing after 8 years. The typical 15-20 year warranties on these products are narrowly limited. Excessive wear to the membrane in ponding areas not covered in a manufacturer's TPO warranty. This area of constant ponding would definitely void the warranty on this roof.







Failures in ponds on flat TPO roofs are not covered in their warranties. If there was a warranty covered repair most TPO and PVC warranties are pro-rated. This means the owner has to come up with the additional funds to cover their share of the material costs and all of the labor cost to remove and replace the damaged roofing. If the customer paid for a labor warranty they will need to pay their portion of the labor costs. All roof material manufacturer's require maintenance to keep the warranty in effect. Lack of maintenance will void ALL roof material warranties. SureCoat System puts the required maintenance on a separate sheet in the warranty so that everyone clearly sees the requirements.





This TPO roof was repaired using the SureCoat Roof System. Acrylics or other roof coatings cannot be used for these repairs for a number of reasons. The most important is that they are not waterproof. Their permeability rating is too high. SureCoat has a perm rating of .0025. Most acrylics range from 3.5 to 15.0+ Also, they do not bond to the TPO, PVC, EPDM or other rubber or plastic membranes and will delaminate in a short time.







SureCoat restores failing and deteriorated PVC, TPO & EPDM. Cleaning it with SureSkrub will lift out the degraded material and clean the roof so that the SureCoat coating can bond to the existing roofing. It will not delaminate due to the special resins that make it self priming. These repairs can later be intergraded into a full system and a warranty can be issued. This is the best use of a customers repair dollars. It will probably cost less than paying all the pro-rated costs if the other manufacturer would be willing to warranty the failure.





## Cool Roof Properties: TPO Membranes VS. SureCoat Roof System

- Most TPO,PVC & other single ply membranes listed on the CRRC have **3 year aged ratings for Reflectivity in the low 70% - high 60%; some are as low as 50%**. This is due to the absence of UV stability and the rays deteriorating the membrane. Once it is damaged in the first 3 years, the future wear is accelerated. With a few exceptions the **SRI-Solar Reflective Index is in the low to mid 80% after 3 yrs**. Manufacturers will refer to their materials as UV resistant-NOT UV stable.
- **SureCoat** has a **3 year reflectivity of 81%-83%** - cleaning it will help recover some if not all of the lost points. The SRI-Solar Reflective Index is very high new. It is 111% to 108% (depending on product). **At 3 years, the SureCoat Coating is listed at 108% tests at 102%. SureCoat is UV stable not just UV resistant**. This prevents the membrane from breaking down and deteriorating with the direct exposure to UV and heat that all roofs withstand on daily basis even when it is raining or cloudy.





# Warranty Coverage of Single-Ply Membranes vs. SureCoat Roof System In the Manufacturer's own words.....Both are 10 Year warranties

 <b>The SureCoat Roof System</b> <b>Manufacturer's 10-Year Limited Product Warranty</b>	Issue No: _____
	Issue Date: _____
	Completion Date: _____
	Expiration Date: _____
Project Name: _____	
Approved Contractor's Name: _____	

The Manufacturer, on behalf of SureCoat Systems (the distributor), grants a limited product warranty to the building Owner (Owner) where a SureCoat™ Roof System was installed by a SureCoat Systems Approved Contractor ("Approved Contractor") listed above, subject to the limitations contained herein.

IF the SureCoat Roof System leaks as a result of ordinary weathering, the Manufacturer, on behalf of SureCoat Systems, will provide a sufficient amount of The SureCoat Roof System to replace said leak. Repairs must be performed by the authorized SureCoat Systems Approved Contractor listed above.

1. This warranty is expressly conditioned upon:

- The accuracy of the Approved Contractor's representations as to the type of roof and condition of the roof at the time of installation.
- The Approved Contractor's obligation to apply the roofing material in strict accordance with the Manufacturer's and/or SureCoat Systems' most current published application instructions and highest industry standards.
- The Manufacturer's and/or SureCoat Systems' liability to the Owner for any defect, failure, or deficiency, which is covered by this warranty, shall be primarily conditioned upon the Owner's obligation to using the Approved Contractor listed above who then installed the SureCoat Roof System within the warranty days of the date that Owner discovers the defect. The Manufacturer and/or SureCoat Systems shall then have the right to immediately suspend the defect, and if not given this right, the warranty shall be terminated.
- The Manufacturer and/or SureCoat Systems shall not be responsible for repairs made with any material other than the SureCoat Roof System or by anyone other than the SureCoat Systems Approved Contractor listed above. Repairs or modifications to the SureCoat Roof System made by any other contractor under warranty with any material other than the SureCoat Roof System will immediately terminate this warranty.
- Owner and provide access to roof for inspection during open of business hours (if requested).
- Owner and provide adequate maintenance to roof as follows: (1) Grains and debris must be periodically removed from roof surface, including removing any materials from designed water flow areas; (2) Roof drains, downspouts, and/or equipment must be kept clear to provide adequate drainage of roof area; (3) All HVAC equipment must have flashing/membrane details that are plumbed directly and completely to the membrane; (4) All other equipment on roof surface must be properly maintained to prevent any oil or chemical leakage onto roof and; (5) All maintenance requirements are as set forth and completely detailed on Page 3 of this Product Warranty.

2. This warranty assures:

- The SureCoat Roof System will not leak due to ordinary weathering for a period of 10 years from the date of completion.
- The SureCoat Roof System will not peel, flake or delaminate from the roof substrate when properly applied per application instructions.
- The SureCoat Roof System will not leak due to animal, vegetable and other growths and to certain chemicals.
- The SureCoat Roof System will not leak due to ordinary ponding water conditions resulting from natural precipitation. HVAC equipment must have functioning condensate lines that are plumbed directly and completely to the roof drains.
- The SureCoat Roof System will not leak due to traffic after product has cured sufficiently to be considered dry. Footprint, walk paths are recommended at areas where HVAC or other equipment is routinely maintained. This condition is only warranty to certain related conditions per Application Guide.

The **SureCoat Roof System** will **not leak** due to ordinary ponding water conditions resulting from natural precipitation. HVAC equipment must have functioning condensate lines that are plumbed directly and completely to the roof drains.

The **SureCoat Roof System** warranty reads completely the **opposite** of most, if not all, **single-ply membranes**.

The confidence of the **SureCoat Roof System** is expressed by their warranty **which covers leaks in ponding areas on flat roofs** without any limitations of time or depth of ponding water.

The seams, flashings, and penetrations made in the roof deck to install a **single-ply system** is why a common **exclusion** appears in their warranties for leaks and to void warranty coverage in areas that pond water.

This warranty was found on a public link to Duro-Last's web site and is not altered or wording changed or any part changed in anyway.

 Roofing, Inc. 525 Morley Drive Saginaw, MI 48601	Warranty No. _____
	<b>10-Year Material Only Warranty</b>

1. TERMS AND CONDITIONS

Duro-Last Inc., ("Duro-Last"), grants a Limited Warranty to the owner of a building ("Owner") installing a Duro-Last Roofing System ("Duro-Last System") installed by a Duro-Last Authorized Dealer/Contractor ("Contractor") subject to the limitations and conditions contained herein.

Duro-Last warrants its product membrane, material and accessories to be free from manufacturing defects at the time of delivery. Duro-Last further warrants that the membrane, material and accessories will not become defective during the 10 year term of this Limited Warranty provided the following conditions are met:

- A. Duro-Last and Contractor have been paid in full for the Duro-Last System;
- B. The Owner has notified Duro-Last within 14 days of the discovery of any failure or defect in the Duro-Last System defect. Owner must notify Duro-Last by calling the Duro-Last Quality Assurance Department (1-800-442-6224), by e-mailing without lost cost, or by certified mail, return receipt requested; and
- C. At Duro-Last's option, the Owner allows Duro-Last's Quality Assurance Technical Representative(s) ("Duro-Last QA Tech Rep(s)") and/or Duro-Last Contractor(s), access to the roof, including if necessary, the removal of and replacement by Owner at Owner's expense, any and all obstructions, including but not limited to: boiler gardens, north roof, pipes, decks, patio and walking surface materials, photovoltaic systems, and other impediments.

Should a defect or failure occur in the membrane, material or accessories within the Limited Warranty term, Duro-Last's obligation shall be limited to providing only the membrane, material and/or accessories necessary to enable the Owner to have repairs made. Duro-Last recommends that the Owner retain an authorized Duro-Last Contractor to make any repairs. Any and all labor costs incurred in making any necessary repairs shall be the responsibility of the Owner but not of Duro-Last.

II. LIMITATIONS AND EXCLUSIONS

A. This Limited Warranty does not apply to Contractor's workmanship, nor does it apply to a Duro-Last System installed on a single-family residence.

B. Duro-Last shall not be liable for damages arising from the design or construction of the building or roof assembly made from the Duro-Last System, including but not limited to those defects that result in water penetrating into the building, including inadequate or insufficient drainage.

C. Duro-Last shall in no instance be liable for any Duro-Last System defect or failure nor for subsequent damages arising from Acts of God, or causes outside Duro-Last's control, including, but not limited to:

B. Duro-Last shall **not be liable for** damages arising from defects in the design or construction of the building or roof assembly aside from the Duro-Last System including but not limited to those defects that result in water penetrating into the building. **Including inadequate or insufficient drainage.**



## Installation Differences

### TPO Membranes vs. SureCoat Roof System

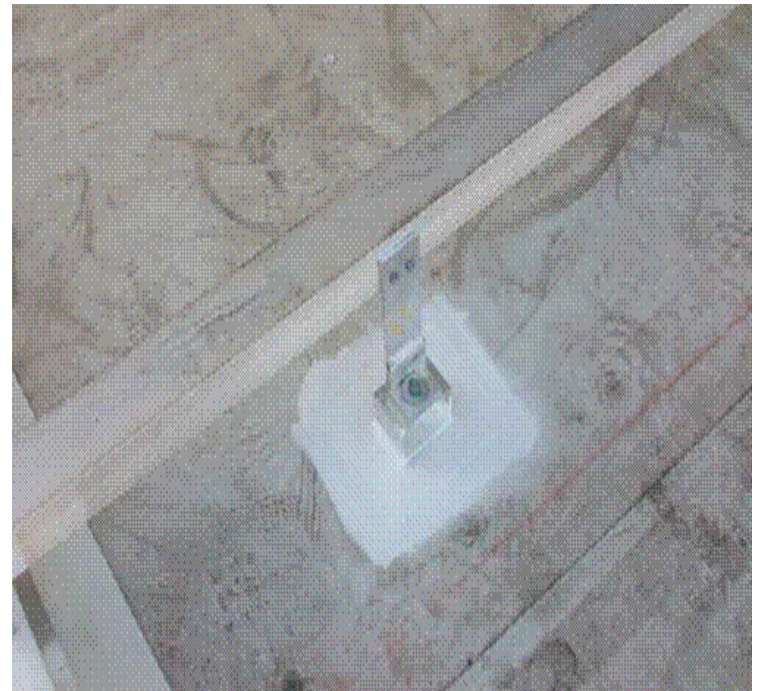
- TPO systems require mechanical fasteners that put thousands of holes in the roof deck.
- **SureCoat is self-adhered with a resin that is in the coating. It is one product throughout the system.**
- TPO systems require special flashings to be used and require a white “mastic” to seal them.
- **SureCoat is self-flashing and adheres to all types of metal and all roofing materials, except silicone. This creates a true monolithic membrane.**
- TPO systems have miles of seams that are subjected to separation as they dry out and move.
- **SureCoat is a seamless fluid applied membrane. No seams to separate or lift.**
- Once the TPO lifecycle is over, the membrane has to be removed or restored with the SureCoat Roof System.
- **The SureCoat Roof System is renewable. Clean it with SureSkrub and top coat with 1-2 gallons per square and the warranty is renewed for another period of time equal to the original warranty period.**
- TPO systems use adhesives, heat welded seams, and insulation and/or underlayment is required. The TPO membrane is not fully adhered directly to the existing roof deck or materials, it is fastened to them with hundreds of bolts and washers that often wear through the membrane. They also leave opportunities for water intrusion if they become loose and the seams separate as they dry out.
- **SureCoat is self-adhered and seamless. It bonds to the existing roof assembly/deck while protecting any seams or flaws in the existing roof system. It is like shrink-wrapping the roof with millions of tiny teeth that bite into the existing roof to become one solid membrane. Because it is waterproof, it will not allow moisture vapor under the membrane preventing delaminating, blistering, or wrinkling.**





Anchor bolts for rack of solar panels were depressed from over-torque and cracked the TPO membrane. Facing removing the system to replace the damaged roof, the SureCoat Roof coating and poly-mesh were used to repair the damaged roof membrane. It was the only coating that would adhere to the TPO.

**Positive adhesion for coatings is 4 pound per lineal inch (4 pli); SureCoat has tested consistently at 13-19 pli.**



**SureCoat is not an acrylic reflective roof paint.** It is a single component epoxy hybrid with tenacious and continuous adhesion, waterproofing, and UV stability with any type of building material; except silicone. **The SureCoat Roof System is the most versatile roof Restoration System on the market;** a full system can be renewed for as long as the building is standing.



This is an example of how ***The SureCoat Roof System*** is used to repair a flat roof that has ponding conditions. SCRS provides a seamless, waterproof single component Epoxy-Hybrid, elastomeric protective membrane that is CRRC approved and has a 93% thermal emittance & 91% sunlight reflection.







This obstruction created a huge pond on both sides of the drain. This has caused the cap sheet materials to deteriorate rapidly. SureCoat Roof System will not get brittle, crack, split or peel making it the perfect material to repair drains, waterways, ponds, penetrations and skylights.







A channel is chiseled on both sides of the drain into the cap sheet and through the felt which is the waterproofing on this very brittle porous roof membrane.







The channels will allow the water to enter the drain area from both sides.







Coating the area with ***The SureCoat Roof System*** material solved the problems.  
***The SureCoat Roof System*** Materials is waterproof from surface to substrate.



03/16/2006





The area where the ponding water had damaged the roof was also repaired with the ***SureCoat*** material. ***The SureCoat Roof System*** is a simple material to work with and can be used to repair, maintain and recondition an entire roof.







A flat roof experiences excessive wear often in the waterways, drains, low spots, equipment curbs including HVAC curbs and penetrations from ponding water, and movement caused by thermal cycles during the course of a day. The SureCoat Roof System can be used to recondition these areas and extend the life cycle of the roof.







Repaired seams on parapet wall and cap sheet that is rolled over the parapet wall around perimeter of roof is repaired using The SureCoat Roof System coating and fabric. Sheet metal can be restored with SureCoat System's coatings. It can be tinted if a color is desired. It comes in 21 standard colors at a nominal charge per gallon. With 4 high end resins make it very difficult to tint. The high reflectivity doesn't allow deep primary colors like bright red and blue. It doesn't tint like paint or acrylic coatings.





The SureCoat Roof System with fabric is used to repair the drain area, waterway, parapet walls and cap. These repairs will often extend the life of the roof anywhere from 2-4 years depending on the condition of the rest of the roof at the time of this repair-maintenance was done and how much material is applied initially. This roof was extended for 2 years to coincide with the tenants lease.







This is a large roof that is managed by a Trust that a roofing consult decides when a roof replacement is due. He was skeptical about coating systems but allowed this area to be done as a “repair”. After seeing the results of the roof extender project he was impressed and gave the roof 3 years more life before it would be looked at for a new roof. At that time the SureCoat Roof can be added onto and this repair incorporated into the new warranted system. The warranty would be better than any of the “New” roof system warranties issued by 100 year old companies known for rubber and asphalt products.



# Before Repairs



This is a new age and even though SureCoat is almost 20 yrs. old with a proven track record, it is time for building owners to start thinking progressively. Due to environmental laws most of the VOC have been reduced or taken out of the products used in the past.







Bio Degradable Cleaners and Detergents can be washed down the drains. These cleaners were used to clean several roofs at the South Coast Air Quality Management District's building in Diamond Bar just the last few weeks. They regulate these products.







SureCoat and Poly Mesh are used form a tenacious waterproof membrane that will intergrade into a full roof system at a later time. The SureCoat System is still the best use of roof budgets for properties owners. Once a full system is installed a renewable warranty is issued to the building owner that covers leaks in ponds-No other manufacturer does that!







Facility managers are great contacts to introduce the SureCoat System to as a repair solution to leaking equipment curbs, penetrations, waterways, drains and other issues common to flat roofs. Once you solve the problem there is no reason to change. Only SureCoat Contractors can access the warranty for their customers.



# Misc. Repairs Food Processing Plant Southern CA







# Misc. Repairs Food Processing Plant Southern CA





# Misc. Repairs Food Processing Plant Southern CA







# Misc. Repairs Food Processing Plant Southern CA





# Misc. Repairs Food Processing Plant Southern CA







By doing the worst areas of the roof the service life of the overall roof system can be extended several years





# Misc. Repairs Food Processing Plant Southern CA







# Misc. Repairs Food Processing Plant Southern CA





# Misc. Repairs Food Processing Plant Southern CA







The waterways are always more worn than the field of flat and low sloped roofs. By restoring these areas the life of the roof as a whole, is extended.





## Cool Roof Properties

### TPO Membranes VS SureCoat Roof System



***SureCoat emits 81-83% of heat that hits it which leaves very little heat available for heat transfer and radiant heat effect. It also lowers the demand on the HVAC equipment helping it last longer and be more efficient. Coating the duct work helps enhance this benefit.***





## SURECOAT OFFERS PERMANENT SOLUTIONS

Skylight lenses changed out. On some roofs, primarily foam, the curb that the frame sits on is too short, gets buried in the foam, or is damaged and needs to be raised or repaired first. It is important that the frame is sealed and doesn't leak.



Frames on older skylights often leak. The lenses can be porous and leak or the large cut in the roof will open up and leak. These are often sealed with mastics that dry out and crack



Replacing the lenses costs less than buying a new skylight. When the SureCoat Roof is done the joint is sealed into a seamless roof that moves without splitting open again.



# Shingle Saver for Skylight Lens Repair SureCoat Roof System for sealing the Skylight Cases

BEFORE



AFTER







Penetration are frequently a source of water intrusion that can be easily repaired using *The SureCoat Roof System* to form a monolithic waterproof seal that will not dry out by heat or the sun's UV rays. The skylight flashings over time rust and mastic repairs become brittle and split. *The SureCoat Roof System* used with fabric around the skylight forms a monolithic seal. SurePrime with fabric can also repair skylight lenses.



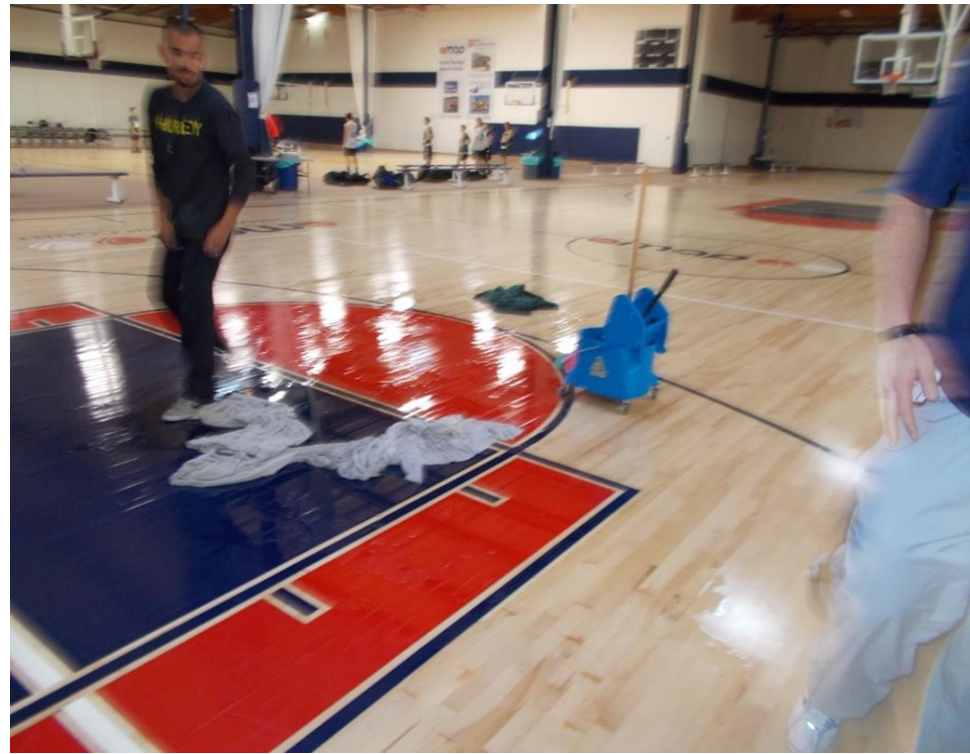


This is an 80,000 SF Sports Facility that has a fortune invested in the interior build out and wood basketball court floors. This roof leaked and has equipment pans under the HVAC units that had a seam in the middle that leaked badly and skylights that also leaked. They had several active leaks that they couldn't get solved through traditional roof repairs.

**Sports Facility with Leaking Roof**



**Inside-Expensive wood floors**







## SureCoat is on the Left side of the roof and SureSet is on the Right

SureSet is a basecoat material that is used to embed the Poly Mesh of the SureCoat Roof System when the weather is cooler and a faster dry time is needed. It dries down to 40°F in 2-12 hours and will make the roof watertight to stop active leaks. SureSet is not UV stable like SureCoat and Sure-a-thane and has to be top coated within approximately 4 months. This project was started at the very end of Jan and was worked on



## Look Closely - THERE ARE BLISTERS IN THE SURESET FROM RAINING ON THE WET COATING.

Because the SureSet wasn't dry when it rained there were little blisters that formed throughout the roof field. The solution was to get a thin nap paint roller on a pole with a little SureCoat on it, just so that it wasn't dry. Do not saturate the roller. Push the coating down and push the moisture out of the coating. Once done, it was allowed to dry completely to make sure it wouldn't blister again. Then it was top coated with SureCoat and was perfectly fine. We **do not** recommend coating when it is supposed to rain within 48-72 hours but unexpected weather happens in the winter. IF the coating was still completely wet it would have washed away leaving a mess of milky looking resins on the downspout area walls and parking lot.

A close-up photograph of a white, textured roof coating. A dark, thin leaf lies horizontally across the middle-left of the frame. To the right of the leaf, there are two circular blue outlines highlighting areas of the coating. The larger circle is on the left, and the smaller one is on the right. Both circles contain small, dark, irregular spots, which are the blisters mentioned in the text. The background is a uniform, slightly grainy white texture.

A thin leaf from a tree



Equipment pans have a seam down the middle and are leaking. The HVAC contractor wanted to charge \$1,200 to disconnect and seal the sheet metal.

BEFORE





Without disconnecting the units the contractor is able to jack up the unit and waterproof under it with the SureCoat Roof System and seal the leaking seam with SureCoat and Poly Mesh for a cost of less than half of what the HVAC contractor would charge.







The SureCoat and Poly Mesh form a complete waterproof membrane that can move with thermal cycles without tearing. Now water can run off of the curb and onto the roof and not rust the sheet metal or get under the membrane or roofing.





Condensation lines need to be repaired and plumbed off the roof. The water from the HVAC condensation is acidic and can eventually “eat” a hole in the membrane. It will wash into a pond when it rains and the Sun’s heat and UV will bake it into the roof in the pond causing it to split the membrane eventually. It does the same thing to any other roof materials. It will take a while, it won’t happen overnight. SureCoat is durable; it is resistant to animal fats, pollutants and most chemicals. It is great on restaurant roofs.







**Warranted NOT to LEAK in Ponds on Flat Roofs. No one puts that in writing EXCEPT SureCoat Systems.**

The SureCoat Roof System installed all the curbs are now part of the complete monolithic roof membrane.

There are no more sheet metal or cap sheet seams for possible water intrusion. All the leaks are repaired permanently repaired and the problems this roof had are solved. No other roof material or system can do what the SureCoat Roof System can do. SureCoat is completely seamless with a perm rating of .0025 to .019; single ply, asphalt materials and coatings cannot do this.

AFTER





Rusted Metal needs to be cleaned with SureSkrub and a scotch brite pad. A rust inhibitor should be used if there is scale rust in the Metal prior to coating with SureCoat.







This is a vent that new costs about \$6,000.00

SureCoat will stop water and air from getting to the Metal which will stop further rusting. The oxidation process is stopped when air and moisture are eliminated from coming in contact with Metal.





The penetrations and equipment on the roof are now self-flashed into the monolithic roof membrane. The joint for the cut in the roof deck is sealed and will no longer split open from thermal cycle movement. It is now part of the monolithic roof membrane. The sheet metal won't rust through and won't need to be replaced.











Room Addition on a historical home in Orange, CA with continuous leaks after being maintained using regular mastic several times a year. SureCoat was used to completely restore the 3 tab shingle roof. The SureCoat coating and Poly Mesh was able to be installed after being cleaned with SureSkrub. The coating and poly mesh was applied without tenting. Voids under the fabric could prevent it from being fully adhered.







Without proper flashings these vent pipe would move with thermal cycles opening up the roof area under the shingles. The nails were backing out of the shingles due to thermal cycle movement and water was ponding and flowing under the shingles and getting in throughout the roof in the nail holes and cracks in the ply wood deck. The ceiling was covered in leaks.





SureCoat has a high solid content it is thick and stacks well giving the fabric a sturdy foundation for saturation. SureCoat is a perfect solution for problematic low slope-flat roofs. SureCoat and Poly Mesh have a 2800 psi. It is strong enough to keep the shingles sealed down and bridging the seams. This would tear a weaker coating system. SureCoat has a 400% elongation; it can move with thermal cycles without tearing.







Full Restoration that has a Manufacturer's 10 Year Warranty that Includes Coverage if the Coating Leaks from Ponding Water.





Over Composite Shingles to save on Cooling Costs. This roof is in Sanibel FL where it is extremely hot. Shingle Saver is a product that will keep mineral cap on shingles to protect the asphalt from drying out and becoming brittle without changing the look of the roof. It dries clear. Shingle saver helps prevent erosion of the mineral cap in winter caused by snow, ice and rain especially in areas that have 4 seasons.



BEFORE

AFTER





## PVDR Roofs at a Charter School in AZ coated with Custom Colors





SureCoat's epoxy hybrid unique resins allows this material to bond to any type of building material including TPO, PVC, BUR, EPDM as well as traditional asphalt and modified roof materials. It also bonds to other building materials such as stucco, block, concrete, and wood.







The only type of material that it should not be applied to is silicone. Nothing bonds to silicone except silicone; that is when it can be cleaned well enough to get full adhesion to itself. Silicone hasn't tested well for being UV Stable and loses a lot of its SRI after the first 3 yrs. Trying to get the dirt and degraded material out of the pores of the silicone has proved difficult and has resulted in failed adhesion. Since nothing bonds to silicone in those case the only option is to tear it off.





These domes are made of PVDR; the same type of material that Kynar is made out of and it often found as a factory finish on metal roof panels. Most coatings have a difficult time bonding to this material. This contractor had tried all kinds of paint and coatings until he found SureCoat as the solution. All these were custom colors to make it look like the solar system.







Decks Waterproofed using the SureCoat Roof System. Other decking systems failed and continued to leak SureCoat solved the problem  
Before & After































12/08/2010









Because SureCoat is a Cool Roof and emits 88%-93% of the heat; in the morning dew or condensation will often still remain on the roof. Traditional roofs are warm by early morning and hold heat burning off the dew. A freshly coated SureCoat Roof can often have standing water from condensation on it from overnight dew especially in an area by the ocean or a lake. So that the water doesn't mix with the coating and cause it to mud crack or fail later (once cured) it is important that you take immediate action. Mop up water with a tile grouting sponge. Put a fan such as an air mover on it or heater if the weather is cold and a fan won't dry it up. Make sure the moisture doesn't get under the fabric or get trapped and coated over again. This will cause it to blister and fail at a later time when it gets hot and the roof thermal cycles. It can blister and split or the membrane can crack and become unstable. Causing it to delaminate or seams separating beneath to lift in the system.

