

Coat'N'Cool[®]HMS

High-Tech Coatings for High-Temp Conditions
HEAT MANAGEMENT SYSTEM FOR SURFACES EXPOSED TO DIRECT SUNLIGHT

PRODUCT APPLICATION GUIDE

1680 Elastomeric White Coating

Description:

Coat 'N' Cool's 1680 Elastomeric White Coating is a premium quality high solids "Ceramic" elastomeric coating. Coat 'N' Cool[®] combines 100% acrylic resins with "Ceramic beads" and non-migrating fire retardants for superior adhesion, weatherproofing and durability.

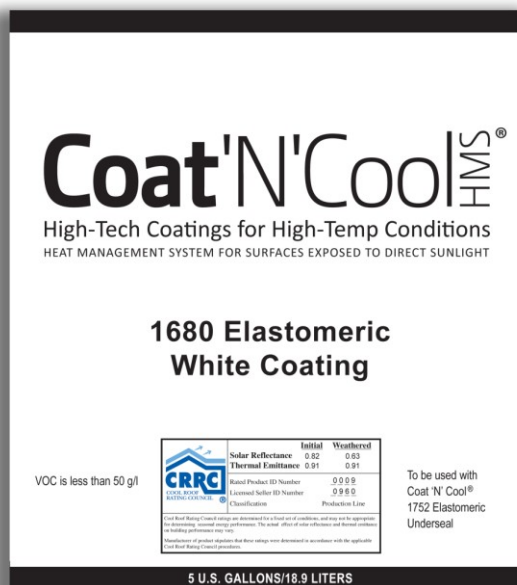
Environmental Advantages/Benefits of the

1680 Cool Roof System:

- Reduces interior temperatures up to 20%
- Up to 30% energy saving towards cooling
- Increase photovoltaic efficiency by 10 – 20%
- Reduce carbon footprint
- Increase occupant comfort
- Waterproofing system
- Resists ponding water
- Extend Roof Life
- Infused with "Ceramic Spheres" to add durability
- Class A Fire Rated Coating
- Easy water clean-up

Uses:

- Low Slope Built-up Roofs
- Single Ply Roofs
- Metal Roofs
- Modified Bitumen
- Polyurethane Foam
- Concrete Tile



	<u>Initial</u>	<u>Weathered</u>
Solar Reflectance	0.82	0.63
Thermal Emittance	0.91	0.91
Rated Product ID Number	0009	
Licensed Seller ID Number	0960	
Classification	Production Line	
Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary.		
Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.		
Exceeds Title 24 Performance Requirements Certified by CRRC		

Important Application Precautions:

- Apply on a clear, sunny day when temperatures are between 50° and 100°F.
- Do not apply when temperature is expected to drop below 50°F within 24 hours.
- Do not apply if rain is forecast within 24 hours of application.
- **Mildew:** DO NOT PAINT OVER MILDEW. Mildew is a fungus, brown, black, grey or even white in color, and will rapidly grow through any coating applied over it. A solution of 50% household bleach and 50% water will kill the mildew.

If you have an older roof in poor condition, lost roofing or shingles, tears and severe splits, you may need a new roof. A neglected roof may not offer the firm sub surface necessary to provide proper adhesion of a membrane type coating. If in doubt, consult a qualified roofer. Roof surface must have proper drainage, installation and slope to provide positive drainage.

Surface Preparation:

Proper roof preparation is essential for successful coating application.

1. The roof surface must be dry, clean and free of all loose and oxidized material, dirt, oil and other contaminants.
2. All loose gravel should be removed by power blower and/or vacuuming. High pressure power washing and/or mechanical scrubbers may be necessary to remove tightly adhering contaminants. Do not power wash if the roof has water leaks.
3. Any unsound areas in the roof should be repaired or replaced. New asphalt should be exposed for 45 to 60 days before coating.
4. Deteriorated or badly corroded metal should be replaced. Rusted areas should be mechanically abraded to remove all loose rust and then cleaned with a muriatic acid cleaning solution.
5. New metal roofs exhibiting any type of surface film should be washed with a muriatic acid cleaning solution to remove film.
6. Low areas that hold excessive ponding water must be brought into conformance by installing additional drains or adding additional slope to existing drains. Excessive ponding is any area that holds in excess of ½" of water as measured 24 hours after rainfall.
7. Using **XP3 White Bond** patch all cracks, seams, flashings, skylights, vents, etc. For older roofs and/or roofs with cracking, alligatoring, failing systems and minor leaks use **Coat 'N' Cool® CC275 Poly Fabric** to reinforce the roof system (See Application System for XP3 White Bond).

8. (Optional) Apply 1 coat of **1752 Elastomeric Underseal** at a rate of 1 gallon per 100 square feet to prime the surface.
9. Each application should be done in one complete step to form one seamless layer over the total area being covered. Apply with roller, squeegee, brush, or airless spray equipment. If applied by spray **1680 Elastomeric White Coating** must be back rolled. Do not thin.

1. Poly-Fabric Seams application:

Using 1752 Elastomeric Underseal:

Use **1752 Elastomeric Underseal** to create a three-course patch to seal all joints, cracks, seams, around vents, over flashings, caps, pipes and skylights, etc. Cracks over 1/16 inch wide should be cleaned and caulked with **XP3 White Bond** before reinforcing (See Application Guide for XP3 White Bond).

- a. Brush a coat of **1752 Elastomeric Underseal** over joint or seam.
- b. Apply **CC275 Poly Fabric** into still wet **1752 Elastomeric Underseal**. While still wet, apply another coat of **1752 Elastomeric Underseal** over the fabric completely embedding the fabric in the coating. Allow to dry.
- c. Apply an additional coat of **1752 Elastomeric Underseal** over all seamed areas. Allow to dry. Apply coating at a rate of 2 gallons per 100 square feet to cover and fill in rough surfaces and pinholes.

Using Coat 'N' Cool® XP3 White Bond:

- a. Use **XP3 White Bond** to create a three-course patch to seal all joints, cracks, seams, around vents, over flashings, caps, pipes and skylights, etc. Cracks over 1/16 inch wide should be cleaned and caulked with **XP3 White Bond** before reinforcing (See Application Guide for XP3 White Bond).
- b. Brush a coat of **XP3 White Bond** over joint or seam.
- c. Apply **CC275 Poly Fabric** into still wet **XP3 White Bond**. While still wet, apply another coat of **XP3 White Bond** over the fabric completely embedding the fabric in the coating. Allow to dry.

2. Poly-Fabric (Full Coverage) Application:

Apply a liberal coat of **1752 Elastomeric Underseal** at a rate of 2 gallons per 100 square feet. While still wet, embed **CC275 Poly Fabric** into the **1752 Elastomeric Underseal**. Apply a second coat of **1752 Elastomeric Underseal** at the same rate to saturate the fabric and allow to dry. It is recommended that another coat of **1752 Elastomeric Underseal** be applied at the same rate over the dried fabric system to smooth the rough surface.

3. Topcoat Application:

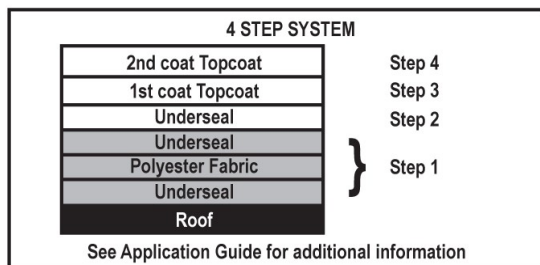
Re-emulsify each container prior to application by using a power mixer.

Apply 2 coats of **1680 Elastomeric White Coating** at rate of 1 gallon per 100 square feet. Apply a third coat if desired. Fill all cracks and crevices.

Heavy duty Waterproofing System:

1. Poly-Fabric Seam application (see instructions).
2. Apply primer coat of **1752 Elastomeric Underseal** at a rate of 1 gallon per 100 square feet. Allow to dry.
3. Apply 1 coat of **1752 Elastomeric Underseal** at a rate of 2 gallons per 100 square feet. While still wet, embed **CC275 Poly Fabric** into the **1752 Elastomeric Underseal**. Apply a second coat of **1752 Elastomeric Underseal** at the same rate to saturate the fabric and allow to dry.
4. Apply a third coat of **1752 Elastomeric Underseal** at the same rate of 2 gallons per 100 square feet and allow to dry.
5. Apply 2 coats of **1680 Elastomeric White Coating** at rate of 1 gallon per 100 square feet. If products are sprayed, it is recommended that the first coat be back rolled. Always cross hatch second coat whenever possible.

GENERAL MAINTENANCE GUIDE FOR WATER PROOFING SYSTEMS



If products are sprayed, it is recommended that the first coat be back rolled. Always cross hatch second coat whenever possible. Always allow proper drying between coats (see dry time for each product). Each Application should be done in one complete step.

Metal Roof Application:

1. See surface preparations above
2. Prepare the metal roof by removing all loose material. Clean and etch.
3. Poly-Fabric Seam Application all seams. (see instructions above)
4. Apply 1 coat of **1752 Elastomeric Underseal** at a rate of 1 gallon per 100 square feet.
5. Apply 2 coats of **1680 Elastomeric White Coating** at a rate of 1 gallon per 100 square feet.

Urethane Foam Roofs:

1. See surface preparations above
2. Remove all old delaminated coating and blow clean.
3. Do not open the roof system.
4. Use Poly-Fabric Seam application using **1752 Elastomeric Underseal** to patch all blisters and sump areas until surface is smooth.
5. Coat with 2-3 coats of **1752 Elastomeric Underseal** until smooth.
6. In areas of standing water apply 2 coats of **1752 Elastomeric Underseal** with **CC275 Poly Fabric** with 2 more coats of **1752 Elastomeric Underseal**.
 - a. Areas of standing or ponding water at a depth greater than of ½" after 24 hours must be addressed by a qualified roofer.
7. Apply 2-3 coats of **1680 Elastomeric White Coating** at a rate of 1 gallon per 100 square feet.

Thinning:

Thinning is not recommended.

Drying Time:

Initial cure time is 8 hours. Allow 12 hours minimum before applying additional coats. Cool and/or humid weather conditions will slow the drying time.

Limitations:

1680 Elastomeric White Coating is not recommended for medium to heavy traffic areas. Not for use on EPDM or rubberized roofs.

Clean-up:

Warm, soapy water is recommended.

Handling and Storage:

Do not allow **1680 Elastomeric White Coating** to freeze in container. Store **1680 Elastomeric White Coating** in a dry protected area in original packaging.

Technical & Physical Properties						
<p>The maximum V.O.C. of this product does not exceed 50 grams/liter. WARNING! If you scrape, sand or remove old paint, you may release lead dust. LEAD IS TOXIC. Contact the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.</p>	Physical Property		ASTM	Result	Requirement	
	Tensile Strength @73°F		D2370	186 psi	100 min	
	Elongation @73°F		D2370	231%	200 min	
	Flexibility @ 0°F 1" manrel		D522B	Pass	Pass 0°F	
	Permeance, perms		D1653	13.5	50 max	
<p>Warranty Systems: Various warranties are available, see warranty specification sheet.</p>		<p>After Accelerated</p> <p>Weathering, 1000 h D4798</p>				
Solar Reflectance/	Test	Result	Section 118: (i) 1			
Thermal Emittance			Requirement			
Solar Reflectance	CRRC-1	0.82	0.70 min			
Thermal Emittance	CRRC-1	0.91	0.75 min			
			Tensile Strength @73°F	D2370	253 psi	NR
			Elongation @73°F	D2370	161%	100 min
			Flexibility @ 0°F 1" manrel	D522B	Pass	Pass 0°F
			Accelerated weathering			
			1000 hours	D1653	13.5	no cracking visible to eye

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