



Energy Savings
Thermal Comfort
Weather Resistance
Long Term Protection

High Solar Reflective
Elastomeric Liquid
Applied Roof Coating
Water-Based for Big
and Low Slope Roofs

COOL BARRIER ROOF

Cool Roof Coatings



www.abolinco.com

High solar reflective Cool Coating which noticeably combines thermal comfort conditions with the reduction of energy and money consumption.

Architects traditionally have recognized that reflective building colors can reduce building thermal loads. Many current references equate 'cool roofing' with white roofing. Certainly white roofs are good reflectors of the sun's heat. However, offering any color as long as it's White is not always the most viable design strategy.

Fortunately, COOL BARRIER technology allows for the design of products that remain cool under the sun – without sacrificing color. COOL BARRIER technology is characterised by a high solar reflectance and high infrared emittance values.

COOL BARRIER Reduce Urban Temperatures and Air Pollution

As vegetation has been replaced with non-reflective materials, our cities have grown steadily. This places a heavy demand on peak energy loads and creates health risks in non-air-conditioned edifices. In addition, heat generates smog, which negatively affects the health of community residents.

Cool Barrier Roof

We Can Make the World Cooler!

Cool Barrier Roof for big and low slope roofs is an excellent quality elastomeric coating based on "cool" raw materials technology. It forms an extremely high reflective mat surface that blocks the incoming solar radiation and remains cooler, contributing to the saving of energy for cooling needs. It is specially formulated to retain its elasticity, even in low temperatures ranging between -20°C to 80°C. It covers completely all existing hairlines or small cracks and withstands in difficult weather conditions such as rain, snow, UV radiation. It prevents mold and green spots.

Cool Barrier Roof follows the roof products specifications which have been set by the US Energy Star, for solar reflectance and infrared emittance and can be used where LEED building certification is applied.



COOL BARRIER TECHNOLOGY Enhance Quality of Life

Schools, homes, warehouses, factories, and vehicles – or any structure set in a sunny environment can develop uncomfortable levels of heat. COOL BARRIER work to decrease this heat build-up and enhance the quality of life for occupants.

Special Characteristics

- ✓ Saves energy by reducing the needs for cooling
- ✓ Contributes to “Urban Heat Island” mitigation
- ✓ Mitigates the consequences of the Global Warming phenomenon
- ✓ Creates thermal comfort conditions
- ✓ Saves money by reducing the billing costs for energy
- ✓ Environmentally and user friendly

Performances According To ASTM 6083 Std:

Volume Solids	ASTM D 2697	70, 08%
Weight Solids	ASTM D 1644	64, 87%
Initial Tensile 0°F	ASTM D 2370	606, 7 psi
Initial Elongation 0°F	ASTM D 2370	102, 8%
Adhesion to Spayed Polyurethane Foam	ASTM D 903	7, 134pli
Adhesion to Etched Galvanized Steel	ASTM D 903	4, 309pli
Fungi Resistance	ASTM G21	Zero Rating
Water Swelling	ASTM D 471	5, 65%
Permeance	ASTM E 96	8, 09 perms
Solar Reflectance	ASTM E903-96	0, 89
Infrared Emittance	ASTM E408-71	0, 89
Solar Reflectance Index	ASTM E 1980-01	113



Suitable Substrates: It is suitable for every kind of new or old mineral substrate, granulated modified asphalt membranes. For other substrates please ask for technical details.

Colors: It is available in a standard white and in a number of shades through Abolin Cool Barrier Colors Palette.

Consumption Rates: For an excellent performance 1, 2 m² per litter must be obtained.

Surface preparation and Primer systems: Surfaces must be clean, dry and free from all defective and poorly adhering materials, dirt, grease and salts. Before working with Cool Barrier Coating systems a thorough power wash with water of the surface with commercial power washer, between 2000- 3500 psi is highly recommended. If you are going to apply the Cool Barrier Roof coating as the final top coating system, apply first the recommended primer system by Abolin Co for the specific surface and then apply the needed coats of Cool Barrier Roof.

Recommended Primers: Cool Barrier Grip Nano, Epoxy Hydrodur Primer.

General: Cool Barrier Roof should be applied at a minimum of 18-20 dry mil thickness (about 1 lit per 1.2 sqm) in two or more passes, depending the way of application Allow adequate time between passes before applying the second coat, usually two to four hours under normal conditions.

Cool Barrier Roof should be NOT be applied:

- At temperatures below 5°C (or 40°F).
- At very high (>90%) relative humidity or when rain has already begun or is expected during the next 24 hours.
- When impending rain is expected to last more than one hour.
- On roofs collecting ponded water. The National Roofing Contractors Association considers ponding water on any type of roof unacceptable. (See the NRCA Roofing and Water Proofing Manual).

Drying Time and recoatability: Touch dry during summer season after 6 hour and recoatable after 24 hours. Drying time depends on weather conditions and can be quite different in accordance to conditions of humidity or temperature.



Packaging: 10.0 & 18.0 liter cans.

Storage: 6 months under appropriate storage conditions

Application method & Thinning Rates: Roller, brush without thinning, airless spray gun up to 5% with clean water. Airless spray equipment is best suited for field applications, although rollers can be used as necessary if overspray is a concern. Clean immediately the painting equipment after the application.

For more information, please consult our technical department for further instructions.

The following minimums are recommended for commercial applications:

PUMP: 4 Litters per minute output and at least 2,500 psi (17,236 kPa) pressure capability.

GUN: Any airless spray gun compatible with pump used.

TIP SIZE: Tip size should be between .027" and .039" (0.7 and 1.0 mm) with a fan angle of 40° to 50°.

FLUID HOSE: A minimum 3/8" (1 cm) inside diameter high pressure hose is recommended in conjunction with any airless handgun compatible with pump used. Cool Barrier Roof overspray may not wet into the surface, particularly in high temperatures, which will create a rough surface texture that will collect dirt.

VOC's Classification: EU limits value for this product (cat A/c): 75 g/l (2007) and 40 g/l (2010). This product contains max 38 g/l VOC.

Safety and Health Information: Follow instructions and recommendations of the MSDS.

GREEN LABEL PERFORMANCES



TEST REPORT: S08CHM06962-Part 2-CSY

RESULTS

Table 1 : The Formaldehyde results for "COOL BARRIER ROOF".

Test	Result
Formaldehyde Content	Not Detected ^a

^a – The method detection limit was 0.1%.

Table 2 : The Elemental results for "COOL BARRIER ROOF".

Test	Result
Mercury	Not Detected ^b
Lead	Not Detected ^b
Cadmium	Not Detected ^b
Chromium	Not Detected ^b

^b – The method detection limit was 0.01%.

Table 3 : The Flash Point results for "COOL BARRIER ROOF".

Test	Result
Flash point @61°C	No Flash

Table 4 : The Volatile Organic Compound (VOC) content for "COOL BARRIER ROOF".

Test	Result
VOC Content ^c	7.4 g/L

^c - Volatile organic compound (VOC) means any organic compound having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101,3kPa.

Table 5 : The analytical results for "COOL BARRIER ROOF".

Test	Result
Halogenated solvent	Not Detected ^d
Epichlorohydrin	Not Detected ^d
Aromatic solvent	Not Detected ^e

^d – The method detection limit was 0.01%.

^e – The method detection limit was 0.1%.

LIMITATION OF LIABILITY

The information in this data sheet is based upon laboratory tests we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the Coatings products made by Abolin Co, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge are reliable. The products and information are designed for users having the requisite knowledge and industrial skills and it is the end-user's responsibility to determine the suitability of the product for its intended use.

Abolin Co has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Abolin Co Coatings does therefore not accept any liability arising from loss, injury or damage resulting from such use or the contents of this data sheet (unless there are written agreements stating otherwise).

The data contained herein are liable to modification as a result of practical experience and continuous product development. This data sheet replaces and annuls all previous issues and it is therefore the user's responsibility to ensure that this sheet is current prior to using the product. The English text of this document shall prevail over any translation thereof.

The management system has been certified according to EN ISO 9001

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