



**High Solar Reflective
Water Resistant
Flexible
Dust Resistant
Waterbased**

**Energy Savings
Thermal Comfort
Weather Resistance
Long Term Protection**

COOL BARRIER RESIST*

For Building Envelope



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 colours can reduce buildings' thermal loads. Many current references equate 'cool roofing' and "cool exterior walls" with whites. Certainly whites 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 Resist*

We Can Make the World Cooler!

Cool Barrier Resist* for masonry and concrete is an excellent quality, low emitting decorative and protective coating, which allows the formation of a rigid yet flexible film with high solar reflective performances. 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. An improved coating composition allows the application on vertical surfaces where optimum sag control and early dirt pick up resistance is critical. It has excellent resistance to dust, withstands in difficult weather conditions such as rain, snow, UV radiation. It prevents mould and green spots. Cool Barrier Resist* performs an excellent quality exterior coating suitable for new projects and renovations.

COOL BARRIER TECHNOLOGY Enhance Quality of Life

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

Typical Data:		
Volume Solids	ASTM D 2697	50 %
Weight Solids	ASTM D 1644	64, %
Initial Elongation 0°F	ASTM D 2370	98%
Fungi Resistance	ASTM G21	Zero Rating
Solar Reflectance*	ASTM E903-96	0, 89
Infrared Emittance	ASTM E408-71	0, 89
Solar Reflectance Index*	ASTM E 1980-01	113
* values refer to white colour		

Suitable Substrates: It is suitable for every kind of new or old mineral substrate, already painted surfaces with acrylics, ceramic and concrete surfaces. For other substrates please ask for technical details.

Colours: 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 5 m² per litter (two coats) must be obtained.

Surface preparation, Primer and Agent 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 2500 - 3500 psi is highly recommended. If you are going to apply the Cool Barrier Resist* 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 Resist*.

Recommended Primers: Cool Barrier Grip Nano,

General: Cool Barrier Resist* should be applied at a minimum of 2-4 dry mil thickness (about 1 lit per 5 Sqm) in two layers. Allow adequate time between passes before applying the following coat,

usually two to four hours under normal conditions. Always ensure that properly adhesion between the coating and the substrate has been achieved.

Cool Barrier Resist* 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.

Drying Time and recoatability: Touch dry during summer season after 2-4 hour and recoatable after 8-12 hours. Drying time depends on weather conditions and can be quite different in accordance to conditions of humidity or temperature.

Packaging: 10.0 and 18,00 liter cans.

Storage: 6 months under appropriate storage conditions

Application method & Thinning Rates: Roller, brush with thinning up to 10% 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 .019" and .022" 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 Resist* 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 15 g/l VOC.

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

Table 1 : The Formaldehyde results for "COOL BARRIER RESIST*".

Test	Result
Formaldehyde Content	Not Detected ^a

^a – The method detection limit was 0.1%.

Table 2 : The Elemental results for "COOL BARRIER RESIST*".

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 RESIST*".

Test	Result
Flash point @61°C	No Flash

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

Test	Result
VOC Content ^c	7.1 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 RESIST*".

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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