

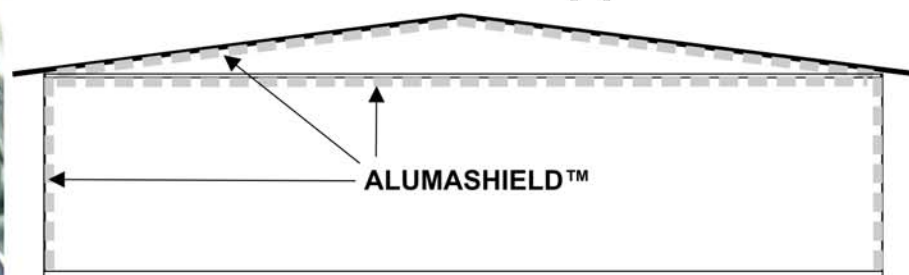
What are the Benefits of ALUMASHIELD™?

ALUMASHIELD™ was designed to be cost effective, easy to use, safe and environmentally friendly!

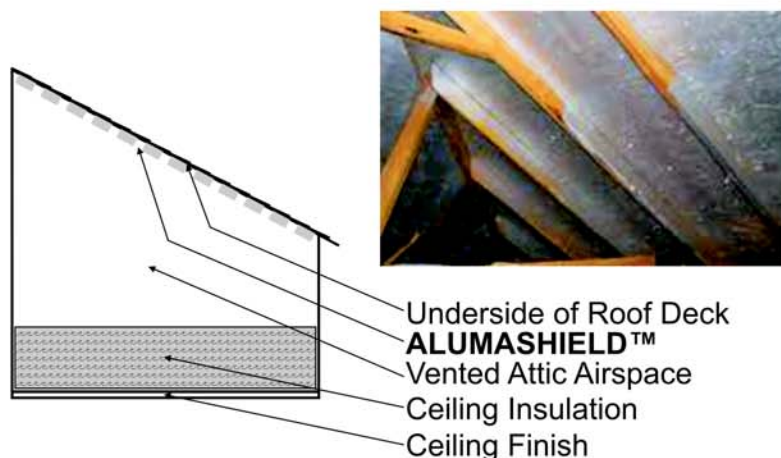
- 1- It can be applied to COX and OSB plywood, plywood, metal roofing and siding panels, drywall, sub-floors, plasterboard, concrete and more.
- 2- **ALUMASHIELD™** is a one part, water based, acrylic coating with less than 150 grams of VOC's (Volatile Organic Compounds) per liter.
- 3- **ALUMASHIELD™** is non-flammable and fumes during application are non-combustible.
- 4- A Respirator is not required during the application of **ALUMASHIELD™**, a fiber dust mask is sufficient.
- 5- The material has a spread rate of up to 500 square feet per gallon using a 6-13 or a 6-15 spray tip.
- 6- **ALUMASHIELD™** has a minimum 12 month shelf life even on opened containers.
- 7- This water-based material is cleaned up with soap and water.
- 8- The material is available in One Gallon Cans and Five Gallon Buckets so that material can be purchased for the exact dimensions of the project.
- 9- **ALUMASHIELD™** is warranted to outlast the interior material on which it is applied.
- 10- **ALUMASHIELD™** is permeable and will not hold or create water on either side of the material. This is very important in case of a roof leak in which a traditional foil type radiant barrier would hold the water and would lessen the chance for the property owner from knowing there is a problem before rot and/or other damage occurs.
- 11- Dries in approximately 30 minutes with Low Odor and the completed application Odor Free.
- 12- The price is affordable and offers a very short payback time; **ALUMASHIELD™** makes the user Money.



ALUMASHIELD™ Applications



ALUMASHIELD™ Effectiveness



Above is a picture of an experiment performed by Alberson's Coatings, Inc. Half of a piece of plywood was coated with **ALUMASHIELD™**. We put the entire board under a heat lamp. An infrared picture determined that the coated side showed a 51 degree Fahrenheit difference compared to the uncoated side. This demonstrates the amount of Radiant Heat that can be deterred by a thin layer of **ALUMASHIELD™**.

YOUR **ALUMASHIELD™** DEALER:

Another Quality Product Manufactured by:
NATIONWIDE CHEMICAL COATING MFRS., INC.
 7106 24th Court East - Sarasota, FL 34243
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WATERBASED

ALUMASHIELD™ INTERIOR RADIATION CONTROL COATING

ASTM C 1371-04a **LOW ODOR NON-TOXIC** LOW EMISSIVITY

LIQUID ACRYLIC ALUMINUM

V.O.C. LESS THAN 150 gr/ltr

www.nationwidecoatings.com

What is ALUMASHIELD™

ALUMASHIELD™ is an aluminum filled, water-based, low emissivity (low-e) Interior Radiation Control Coating (liquid applied thermal barrier). **ALUMASHIELD™** is designed mostly for application to the underside of a building's roof, but can be applied to the interior sides of exterior walls. It will dramatically reduce the amount of radiant heat entering the structure. **ALUMASHIELD™** is a non-emitter of radiant heat because of the inert aluminum pigment. Aluminum properties block up to 77.5% of the radiant heat normally transferred through roofs into air space below. It helps stop radiant heat from escaping and also keeps heat inside during colder months. This results in a significant reduction in the cooling requirements of the building in warm weather, without sacrificing the building's ability to retain heat in cooler weather which will also decrease energy consumption. **ALUMASHIELD™** lowers the emissivity (heat that passes through) of the surface to which it is applied with an emissivity rating of .225 which exceeds the requirement for IRCC, and is categorized under ASTM standards as an IRCC, Interior Radiation Control Coating.

Why ALUMASHIELD™ and How Does It Work?

All elements have properties. The main property of aluminum is it reflects heat from being transferred to the cooler surface it covers. It has been around for generations and everyone in the United States uses aluminum in some capacity because it blocks heat transfer. Developed 100 years ago, in 1910, it has been used to keep chocolate candy from melting (ie. Hershey Kisses), sandwiches, hot dogs, and your Thanksgiving and Christmas turkey warm. Eighty years later the United States Department of Defense used it in liquid form on NATO vehicles to hide their heat trace.



LETS TALK TURKEY. When you cook a turkey you cover it with a tent of aluminum foil. It blocks the heat which prevents the bird from drying out. With 30 minutes to go you remove the aluminum foil barrier which allows the heat to brown the meat. Your Great-Grandmother used radiant barriers made of aluminum and tin. Your attic is like an oven. If you spray a thin coating of aluminum on the plywood under the roofing material you have essentially tented your attic and blocked the transfer of heat. Specifically, you have made yourself money by reducing your energy costs while increasing the comfort of your home.



How ALUMASHIELD™ Makes You Money

When the temperature of the attic is lowered, a reduction as much as 20% in the Air Conditioning units run time during peak hours can be achieved. When this occurs, two things happen; your energy bill decreases and the lifespan of your Air Conditioning unit is greatly increased. **ALUMASHIELD™** will effectively make you money with up to 25 degrees Fahrenheit drop in peak attic temperature, and upwards of 57% improved efficiency of the cooled air delivered through the air ducts. Also, radiant heat normally transferred by the plywood in your attic is blocked from entering and helps keep the radiant heat in cold weather from escaping.

ALUMASHIELD™ will reduce the average utility bill and is an excellent low-cost substitute for metallic foils or metallized plastic film radiant barriers. **ALUMASHIELD™** has an unlimited life cycle and can be applied to most any surface.



Will ALUMASHIELD™ Void My Shingle or Roof System?

Even though the heat from the sun is reflected back toward the outside of the building through the plywood and roofing materials, these manufactures have stated that it will not void their materials warranty:

- Elk
- Owens Corning
- GAF
- Certain Teed Corporation
- Celotex Corporation
- Crane Plastics
- IKO Industries, Ltd.
- Atlas International Inc.
- Vande Hey Raleigh
- Louisiana Pacific, Inc.
- US Intec

What is an Interior Radiation Control Coating (IRCC)?

Definition of an IRCC

As characterized by ASTM, an Interior Radiation Control Coating is a non-thickness dependent, low emittance coating. When applied to non-porous building materials such as plywood, OSB, metal siding, or plasterboard, according to the manufacturer's installation instruction, it lowers the normal surface emittance of these materials to 0.24 or lower. An IRCC works by changing the emittance of the surface where it is applied. Building products, such as wood, brick, painted surfaces and plasterboard exhibit high emissivities (0.7-0.95). When heated above the temperature of adjacent surfaces, they radiate most of their heat energy to cooler surfaces. An IRCC works by lowering their surface emittance to 0.24 or lower, lessening their ability to radiate heat. Thus, an IRCCS is similar to a Radiant Barrier System (RBS) but is somewhat less efficient due to its higher emissivity and is comprised of a coating on a building surface, not a foil or film product.



Advantages of an IRCC

An IRCC is normally applied using airless spray equipment, resulting in low labor costs and greatly reduced installation times. Where spraying is not practical, an IRCC may be applied using a short nap roller. Also, a water-based IRCC can be safely installed in existing structures where the costs of installing foil or film products may be prohibitive or impractical. An IRCC may also be used in many manufactured products (such as infrared heat reflectors of automotive parts) where it is impractical to adhere foil or film radiant barriers.



The IRCC may be applied to a building surface already in place (such as the underside of an installed roof deck or the inside of a wall) or it may be applied to a building component before it is installed (such as roof decking painted while laying on the ground before it is lifted into place). Regardless, when a building component is painted with an IRCC, it is imperative that there is a minimum of 2" of air space facing the coated surface.

RIMA International Verification Program

RIMA (Reflective Insulation Manufacturers Association) International Verification Program was established to identify reflective products which have fulfilled test requirements in accordance with the current applicable code standards. At this time, products are verified in one of the following three categories: reflective insulation, radiant barrier or interior radiation control coating (IRCC). A third-party independent testing and inspection laboratory



(R&D Services, Inc. in Cookeville, TN) will determine whether a product's physical properties comply with the appropriate standards. In order for a company to obtain approval on a category of products, all items within that category must be evaluated and deemed in compliance with current test

standards. Technical data sheets, as well as websites containing test information, have been cross-checked for accuracy. Product verification is renewed annually with all required testing and the full verification procedure repeated every five years. All products will be labeled with a RIMA-I verification logo with a unique identifier that is comprised of Country Code/Member Number/Product Category. (*ALUMASHIELD™ RIMA Verification Pending*)

What Testing proves ALUMASHIELD™ Really Works?

R&D Services, Cookeville, Tennessee performed the ASTM C 1371-04a Test Protocol: Test Method for Determination of Emittance of Materials near Room Temperature Using Portable Emissometers. It was determined that **ALUMASHIELD™** testing concluded the following results:

R&D ID	Specimen Description	Average Emittance	Standard Deviation	Heat Blocked	Satisfy IRCC ASTM
1580091113-3	Nationwide C	0.225	0.003	77.5%	YES
The 95% reproducibility as stated in Section 10 of ASTM C 1371-04a is 0.019 units					