

Radiant Barrier Paint, Radiation Control & Vapor Retarder Coating

Helps Prevent The Cops Thermal Imaging FLIR Camera's From Being Able To Spot Your Inside Marijuana Grow Operation

A cost effective boost to conventional home insulation that can save energy and money

CERAMIC-ALUMINUM BARRIER COATING

As a Radiant Barrier: Stops heat from entering or escaping.

2 Different Types Of Paints Described Here

Until now the only types of radiant barriers available were foil film, metalized plastic film, and metalized "chips" . These types of barriers are installed by attaching to the underside of the roof with staples or sprinkled about on top of the fiberglass insulation on the attic floor. There are a few sprayable paint coatings available that are sold as radiant barriers but they all contain volatile solvents which are not only hazardous to the installer but also to the homeowner as the toxic fumes penetrate down through the ceilings and into the interior. Don't be fooled by the terms "latex base", "water cleanup" as they do not reflect the true chemical makeup of the coating, read the ingredients!

Hy-Tech Barrier Coat is the ONLY radiant barrier paint that contains pure metal (aluminum) pigment, Hy-Tech insulating ceramic microspheres and NO mineral spirits or other volatile, flammable solvents.

How It Works:

Aluminum is highly reflective to infrared (IR) due to the high concentration of mobile electrons. Barrier Coat contains aluminum metal in the form of thin "Leafing" aluminum flakes which are highly reflective and reduce the penetration of IR radiation. The overlapping aluminum flakes align themselves parallel to and concentrated near the surface of the coating and have reflectance values of 0.75 to 0.8 for the key spectral range of 1 to 8 .mu.m.

In addition to the infrared reflective aluminum pigment, Barrier Coat also contains a very high concentration of heat reducing Hy-Tech Insulating ceramics. The combination of these two heat reduction pigments forms Hy-Tech's exclusive "Ceramic Vacuum Matrix" which minimizes solar-induced heat build-up

As a Sound Barrier:

The HY-TECH hollow ceramic microspheres are a vacuum inside. Physics law states that nothing can move by conduction through a vacuum, since it represents an absence of matter. In effect we have a miniature thermos bottle... a microscopic hollow vacuum sphere that resists thermal conductivity and reduces the transfer of sound fairly well. Although Barrier Coat reduces the transfer of sound it is not intended to be a solution for serious sound problems. (For sound reduction See [Acousti-Coat #150](#)

As a Vapor Retarder: You Must Prevent Moisture Accumulation

Moisture control is a major concern associated with thermal insulation. The warm air inside your house

contains water vapor. If this vapor passes into the insulation and condenses, it can cause significant loss of insulating value.

If moisture becomes deposited in the building structure, it can cause mold growth, peeling paint, and eventual rotting of structural wood.

Vapor retarders are special materials that reduce the passage of water vapor. Vapor retarders should be used in most parts of the country. In colder climates, place the vapor retarder on the warm side--the lived-in side--of the space to be insulated. This location prevents the moisture in the warm indoor air from reaching the insulation. If you live in an area where the climate is predominantly hot and humid, check with a local builder to determine the correct placement or need for a vapor retarder. More detailed guidance on regional differences in moisture control recommendations can be found in the Moisture Control Handbook published by US Department of Energy .

To guard against moisture problems, use Barrier Coat on interior walls and ceilings and provide adequate ventilation for the house. If you have a crawl space you should spray the underside with Barrier Coat.

Barrier Coat #85 Features:

- Very low odor, soap and water clean up.
- Low applied cost per square foot
- Dual protection: The metallic aluminum pigment reflects away radiant energy or heat from the sun during the summer months and in winter the same microscopic aluminum particles prevent radiant heat from leaving the building. Hy-Tech insulating ceramics further reduce conductive heat transfer.
- Permeable, does not trap moisture but reduces its rate of transfer.
- Easily installed using brush, roller, or spray
- Excellent for back priming wood sheathing and siding in new construction not only providing a superior radiant barrier but also protects against wood rot from water intrusion through cracks and splits in the wood
- Saves money by lowering heating and cooling cost of operation and wear and tear of the equipment.
- Improves efficiency of existing insulation by lowering the temperatures that it is exposed to.
- An Easy way to upgrade existing structures
- Easily applied to Attic Space, underside of roof decking, side walls and overhead doors in metal buildings, Duct work, Pipes, interiors of cargo transportation vehicles, barns, storage buildings, animal shelters, grain silos, poultry housing...the applications are endless
- Due to the high reflectivity of the coating Barrier Coat increases interior lighting levels in commercial and industrial buildings which aids in reducing lighting costs.
- In buildings heated by infrared heaters, wood burning stoves or other radiant heat sources, Barrier Coat greatly improves the efficiency of the heat source reducing fuel and energy costs
- On interior wall applications Barrier Coat not only provides a barrier to radiated heat but also an Aluminum vapor barrier which reduces water vapor transfer through the walls, a real plus for older homes and homes with EIFS wall systems.
- Barrier coat can be top coated with a decorative conventional wall paint.
- Environmentally Friendly! Contains No ammonia, No alcohol, No solvents!
- SAVE Money...Do it yourself. We include with every order, step by step instructions on how you can easily and inexpensively apply barrier coat.

Spread Rate: 250-300 sq ft per Gallon

Two coats are recommended on new unprimed wood to insure an even distribution of the aluminum and ceramic particles.
Available in 1 Gal, 5 Gal, and 55 Gal drums
\$38.00 Per Gal...5 Gallon \$190.00



Download >> [MSDS Data Sheet](#)

Available here <http://www.hytechsales.com/prod85.html>

Radiant Heat Barriers Make Your Building More Energy Efficient
Save 15-30% On Your Utility Bill

Paint Additive Can Save You Money Two Ways

Radiosity 3000 is a paint additive made of tiny glass beads that creates a radiant barrier on your roof, ceiling or walls. It simply reflects radiant energy from the sun rather than absorbing it. This keeps your building cooler in the summer and thereby saves on cooling bills.

In addition, it reflects back warm radiant heat inside a building so that it cannot escape. This keeps your home warmer in the winter and saves on heating bills.

How Much Will I Save?

This depends upon where you apply Radiosity 3000 and what part of the country you live in. In general, customers are reporting average energy savings of 15 to 30 percent . Conditions that can affect this vary from one building to the next.

Savings are greater when Radiosity 3000 is applied to attics in the southern states where the sun is the hottest and the air conditioning season is longest. However, in the northern areas similar savings can occur if Radiosity 3000 is applied to interior ceilings and walls. The U.S. Department of Energy has performed studies on radiant barriers and has determined that a savings up to 42% can be realized from radiant barriers. If you save energy, you save money.

Savings are difficult to determine due to many variables such as: color of shingles, color of house, tree coverage, number and temperature of hot days; age, condition, and type of A/C unit; age, type, amount and condition of insulation, etc.

How Do Radiant Barriers Work?

Problem: Sunshine hits your roof, walls and windows of your home. When this happens, the infrared (radiant) energy is transformed into heat energy and passes through your roof, walls and windows. Conventional thermal insulation such as fiberglass, polystyrene or cellulose, etc. does not block this type of heat when it enters or when it exits .

Although conventional insulation slows down the transfer of heat caused by conduction or convection inside your home, it does not keep out the radiant energy. Radiant heat goes right through your

insulation, no matter what thickness and no matter what type. And appx. 75% of your total building heat transfer is of the radiant type. That means your current insulation is only doing part of the job it needs to do to make your home thermally efficient. Solution: Radiosity 3000 works in two ways: reflecting radiant energy from outside and reflecting radiant energy from inside. Used in attics, Radiosity 3000 reduces attic temperatures by 30 to 40 degrees. When attic temperatures are reduced, the loading on your air conditioning system is reduced. And when your air conditioner is not working as hard, or as often, your electric bill is reduced. Used on ceilings and walls, Radiosity 3000 blocks a significant portion of radiant heat from entering and leaving your home.

Before Application After Application

Benefits of Radiosity 3000:

- Reflects a significant amount of radiant energy saving 15-20% on heating and cooling costs.
- Easy to install by anyone via brush, roller or spray gun.
- Will not create mold or mildew and is unaffected by humidity or condensation
- Creates a harder paint surface which makes paint more durable and last longer. This durability also makes the paint more washable.
- Non-toxic once mixed with paint.
- Fire proof.

How Is It Made: Radiosity 3000 is made of Borosilicate Glass Beads. Period. These beads are hollow spheres and provide the basis of Radiosity Radiant Barrier Technology. When these glass spheres are added to paint, a radiant barrier is produced. The radiant barrier reflects radiation in the infrared spectrum, which cools the space behind.

Radiosity 3000 is not an insulation but, due to its nature, will reflect heat in the form of electromagnetic radiation. MSDS

Where Do You Use It?

- Attics: Homes, apartments, commercial, industrial underneath shingled composition roofs, or on top of roofs before applying new shingles
- Metal roofs: RV's, Mobile Homes, Agricultural buildings underneath or on top with elastomeric paint
- Exterior Walls: Stucco, brick, wood, metal siding
- Interior Walls and Ceilings: against exterior and against the attic
- Ductwork: Metal or plastic
- Underneath Concrete Slabs: on plastic or polystyrene

How Does It Compare To Metallic Radiant Barriers? [Read Customer Comment](#)

There are other types of radiant barriers on the market that are designed to reflect radiant energy such as

metal foil type barriers. While they may appear similar, in practice they are completely different. That's because metallic radiant heat barriers require a shiny reflection and over time have been known to lose up to 50% of their effectiveness due to dust obstructing the barrier. Furthermore, according to bau biology, putting a metal shield around a building may have a negative impact on the inhabitants.

Radiosity 3000 also can be applied outside or inside a building very easily and quickly requiring very little labor. It is especially effective in older buildings because nothing need be done before it is applied. Just paint it on the wall, ceiling or attic. Metallic barriers must be stapled which requires extra labor expense.

Frequently Asked Questions

COVERAGE:

For attic installations: Apply thicker. One gallon of Radiosity 3000 + 20 oz of water to mix, + 5 gal of paint yields 5.25 gal of material which covers 625 to 750 SF. Any type of paint is acceptable except flat paint. Paint must have sheen. We recommend AFM Safecoat.

For indoor wall and ceiling or outdoor roof applications: One gallon of Radiosity 3000 + 20 oz of water to mix, + 5 gal of paint yields 5.25 gal of material which covers 1,250 SF per 5 gallon . Eggshell, semi gloss, or gloss must be used. As slight color and texture changes can occur, test an area first for color and texture matching. AFM Safecoat paint is recommended.

For metal roofing: One gallon of Radiosity 3000 + 20 oz of water to mix, + 5 gal of paint yields 5.25 gal of material which covers 375 SF per 5 gallon spraying from the topside, use a high quality Elastomeric paint.

PAINT TYPES:

Almost any paint works well with Radiosity 3000: AMF Safecoat or Bioshield, Latex, Alkyd Enamel, Elastomeric, Polyurethane. For specific applications, consult your local paint suppliers.

Radiosity 3000 is not intended for use in stains and varnishes. These products are absorbed into the material surface leaving little, if any, radiant barrier.

PROCEDURE:

Caution: Always wear dust mask when handling Radiosity 3000

Caution: Follow Manufactures recommendations regarding safety

1. Lay out drop cloths in an area away from airflow to minimize airborne dust.
2. Strain paint into clean bucket (as required) DO NOT STRAIN PAINT AFTER RADIOSITY 3000 HAS BEEN ADDED
3. Carefully add Radiosity 3000 into empty bucket, then add cutting agent such as water.
4. Add half the paint to the bucket.
5. Mix slowly with sheetrock paddle mixer
6. Continue mixing until clumps disappear
7. Scrape sides of bucket with paint paddle
8. Continue mixing until you get a smooth consistency
9. Box paint (pour paint between buckets)

APPLICATION:

1. If using a brush or roller, the mixture is ready to apply.

2. If using an airless sprayer, remove all filters from machine and gun first.
3. For interiors and exteriors, use a 517 tip.
4. For attics, use a 619 or 621 tip.
5. For attics, coat all under-decking, joists and ductwork.

Radiosity Heat Barrier, 1 gallon container

Price: \$59.00

Available Here Online

<http://www.greenbuildingsupply.com/utility/showProduct/?objectID=623>

How To Hide Marijuana Grow Op's From
Airborne Infrared Flir Detection Devices #2

Page 2 Tips Guides How To's On Avoiding Detection of Infrared cameras are widely used by law enforcement for border patrol, grow room confirmation, and other surveillance operations. There is legal debate as to whether this technology is intrusive or non-invasive.

Growers fear IR because it's difficult to hide invisible heat? Protecting yourself against excessive heat emissions is a good defensive measure. This FAQ focuses on masking heat emissions.



A \$30,000 Fluke Heat Flair Camera

What is infrared?

Light and heat energy warm objects, which then re-radiate excess energy. Some of this excess energy is emitted as low-energy infrared. IR is invisible to the naked eye, but can be displayed and measured by specialized cameras.

What does Leo look for? IR imaged residence

Officers are trained to look for hot spots on walls and windows, unusually warm foundations, exhaust emissions from vents and chimneys, and warming trends typical of marijuana grow operations. Leo will wait until evening or early morning (when the grow is up to full temperature and the air is cool). He will also look for light leaks, smells and other info at this time.

Note: Leo will try to image a suspected grow-op from all angles, but is only legally able to do so from public property (ie. Sidewalks, roads, public paths, etc).

Note: power companies occasionally image power pole transformers to see if they are abnormally hot (problems), and to source power theft.

Legal implications

(ExpensiveCloset) "A thermal imaging scan does not intrude in any way into the privacy and sanctity of a home?the privacy associated with a home, are (not) threatened by thermal imagery." (US supreme court ruling)

"The Supreme Court ruled 5 to 4 on June 11 [2001] that police cannot use infrared heat-detecting technology to gather evidence from a private home without a search warrant" High Times, October 2001 (Pg.20)

In Canada, IR is used in the pre-investigation phase. Positive results can then be used to obtain a search warrant.

Will Insulation help?

Conventional insulation will help block IR, but it is probably not enough by itself. A fully insulated wall (R 40) will hold heat much longer than a window (R 2). Concrete is a good conductor of heat; after hours of HID lighting, foundations will become abnormally warm.

Most growers flower at night to take advantage of the naturally cooler air; unfortunately, a warm grow house will radiate lots of thermal energy compared to the cool night air.

How do I mask my heat emissions?

Note: Small grows (under 2000w) would probably not emit enough heat to warrant the effort or expense.

Note: Reducing grow room temperature will reduce heat emissions; however, the grow room will still be warmer than surrounding basement rooms.

This technique creates a false wall to contain cold air. Interlocking rigid foam panels prevent hot grow room air from contacting and warming house walls. Cold air is blown into the gap between the foam and the walls for maximum protection. The wall's exterior will appear 'cold' to an IR camera, indicating a negative for internal heat.

- "Partial room" (insulate exposed walls only)
- "Room in a room" (entire rooms are insulated)

*Floor. Concrete foundations absorb heat readily. Build a sub floor to raise the entire grow off the floor.

*Walls. Use interlocking 1.5 or 2" foam insulation along all exposed walls. Place the insulation 1-4" away from walls, fit foam panels from floor to ceiling (some cutting may be required), and blow cold air into the gap. Seal seams and corners with tape. Cover walls with Mylar to reflect heat back into the room.

*Windows. Windows are essentially uninsulated, so you must fill the gap with insulation. Draw the curtains/blinds, add black poly behind, then add insulation.

Drawing description partial 'Room-in-a-room'

A ? Public property that Leo can image from

B ? Internal basement room. Grow room heat will still be noticeable, and this side needs protection.

C -- ?Safe? basement rooms. Put ballasts and reservoir outside to minimize heat

D ? Partially insulated growroom. The pink band is the interlocking foam insulation, the blue band is the cold air contained between the insulation and the house walls. The window on the bottom of the picture can be open to allow cold air to enter the air gap. Room temperature air can also be blown in from an adjacent basement room through a hole in the foam panels.

Hiding the Exhaust

Safely exhausting hot air is difficult; Leo looks for unusual heat emissions coming from opened windows, chimneys, dryer vents and other handy places. Note: running exhaust to outside sheds, barns and tree stumps is well known to Leo.

Exhaust down the sewer. Thanks to JonJaffer

Every house has a sewer vent standpipe. By venting down the sewer, the exhaust will be chilled and smell is distributed amongst you and your neighbors. The sewer cleanout access is often a 3-way 4" abs T with a threaded cap somewhere in the basement. Remove cap, and hook your blower to the T (A 4" to 3" adapter funnel may be required) and run blower 24/7. This will not affect normal use of the sewer

Cool exhaust with water

Place a wet towel (wicking water from a tray underneath) partially over the end of the exhaust. Spraying

water inside the exhaust pipe works as well.

Underground exhaust

Running the exhaust through a long, buried pipe helps to cool the air. Perimeter drains can be used for this.

Water-cooled lights

Running water cooled lights is very effective; IR heat from the lights are washed down the drain. Water cooled light systems are currently difficult to source, and have drawbacks including cost, condensation and leaks.

How To Hide Your Marijuana Grow Room From Infrared Detection Cameras FLIR

Infrared cameras are widely used by law enforcement for border patrol, grow room confirmation, and other surveillance operations. There is legal debate as to whether this technology is intrusive or non-invasive. Supreme Court has ruled it's Illegal in USA, Canada it IS Legal

How To Hide From Airborne Infrared FLIR Detection Devices

How To Hide From Airborne Infrared FLIR Detection Devices 2

The Basics Of Thermal Imaging Heat Detection FLIR Camera's

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