



HeatShield®

Reduce energy consumption up to 12% with our HeatShield® Technology

How HeatShield® works:

HeatShield® reduces the temperature in your building by preventing the infiltration of radiant heat through the roof. Radiant heat from the sun moves through the air and is absorbed by the roof causing it to increase in temperature. The heat then moves through the roof to the air inside of the building increasing the ambient temperature and requiring higher cooling costs. HeatShield®, with the low e-value of 0.21, can be applied underneath the roof deck to decrease the radiant heat transfer from the roof to the air inside of the building. Therefore, HeatShield® will keep your building cooler and can decrease your cooling costs up to 12 percent.



What is E-Value?

E-Value measures the emittance of a material. The emittance is how much radiant heat the surface allows to transfer through it. Therefore, the lower the e-value, the less radiant heat is passing through. The range for the e-value of materials is between zero and one. HeatShield® has an e-value of 0.21, while most building materials (i.e. wood, shingles, etc.) have an e-value of 0.8. HeatShield® may also be applied to the inside of all exterior walls for additional energy savings.



Features

- Low emissivity with 0.21 "e" value
- Reflects up to 79% of radiant energy
- Does not alter electromagnetic fields (i.e. does not inhibit cell phone signals)
- Application by spray, roller, and brush
- One Coat Coverage on bare wood and primed metal
- Breathable

Benefits

- Reduces energy expense
- Increases interior comfort level
- More cost efficient than alternative attic systems
- Will not increase attic moisture
- Fast Application
- Easy to apply



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WHERE TO USE

- Bottom side of roof decking
- Primed or coated metal roofing
- Exterior wall sheathing materials

SUBSTRATE

- OSB
- Plywood
- Chip Board
- Wood
- Metal
- Concrete
- Masonry

TECHNICAL DATA

COMPOSITION: HeatShield contains water, acrylic copolymer emulsion and other proprietary ingredients.

Compliances: ASTM C 1321-98

PACKAGING

5 gallon plastic pail

COLOR: Silver Metallic

SHELF LIFE: 6 months when properly stored.

STORAGE: Store in original containers in a clean, dry area between 40 and 90° (4 and 32° C). Keep away from direct Sunlight. Keep from freezing.

HOW TO APPLY

WOOD SURFACES

1. Apply to a clean, dust-free, dry surface. No need to prime.

METAL SURFACES

1. Remove all Surface contaminants by washing with an appropriate cleaner.
2. Rust and mill scale must be removed using sandpaper, steel wool or other abrading methods.
3. Bare metal surfaces must be primed with the appropriate primer. It is usually recommended to prime the same day it is cleaned.

MASONRY AND CONCRETE

1. Apply to clean, dust-free, dry surface. No need to prime.
2. Remove all surface contaminants with an appropriate cleaner.

MIXING

1. Mix thoroughly for 3 minutes with a squirrel cage type mixer before use.

APPLICATION: HeatShield may be applied by brush, roller, and sprayer. The preferred method is spraying.

AIRLESS SPRAYER: Recommended pressure is 2,000 psi using tip size 0.019 to 0.021" (0.48 to 0.53 mm). For best results use a spray pump size 3/4 GPM or greater.

ROLLER: Use a 3/8" (9.5 mm) synthetic-nap roller cover.

BRUSH: Use a nylon/polyester device.

NOTE: Because of its use as an attic barrier, with roofing nails penetrating the surface, brushing or rolling may be difficult application methods.

DRYING TIME: Dries to the touch in 2 – 4 hours at 77° F(25° C) and 50% relative humidity.

CLEAN UP: Use warm, soapy water, Follow sprayer manufacturer recommendations when cleaning equipment.

FOR BEST PERFORMANCE

Test Data

PROPERTY	RESULTS	TEST METHODS
"e" value (emissivity)	0.21	ASTM C 1371
Vapor transmission, perms	11	ASTM E 96
Weight per gallon, lbs	9.0	ASTM D 1475
Solid Content, %By weight	25.77	ASTM D 5201
%By volume	21.86	ASTM D 5201
Viscosity, KU	60	ASTM D 562
Flash point, ° F (°C)	>187 (86)	ASTM D 3278
VOC Content, g/L (lbs/gal)	137 (1.14)	ASTM D 3960
Yield		
RATE, FT ² /GAL (M ² /L)	WET FILM, MILS (MICRONS)	DRY FILM, MILS (MICRONS)
325 – 425 (8– 10.5)	4 (102)	0.6(15)

- Must be applied by a professional applicator.
- Do not topcoat; must remain in contact with air.
- Do not thin.
- Do not tint.
- HeatShield is not designed to withstand any handling.
- To maximize the effectiveness of HeatShield, a minimum of 1"(25.4 mm) of airspace is required.
- Use with proper ventilation.
- Ensure appropriate personal protective equipment is used so that the product does not come into contact with skin, eyes, or clothing. Use impervious gloves, eye protection, and if the TLV is exceeded or if used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with local, state and Federal regulations. Review Material Safety Data Sheet for further information.
- Do not expose to open flame.
- Make certain the most current versions of product data sheet and MSDS are being used call Customer Service (1-800-374-7663) to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by GlobalShield personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

HEALTH AND SAFETY



GLOBAL SHIELD
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Warning: HEATSHIELD contains no hazardous ingredients in reportable concentrations as defined by 29 CFR.1910.1200 and WHMIS.

Risks: May cause skin, eye or respiratory irritation. Ingestion may cause irritation.

Precautions: Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/OSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid: In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION. Refer to material Safety Data Sheet (MSDS) for further information.

VOC Content: 137 g/L or 1.14 lbs/gal, less water and exempt solvents when all components are mixed and product is applied per manufacturer's instructions.

Risks: May cause skin, eye and respiratory irritation. Ingestion may cause irritation.

INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions: Keep container closed. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/OSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

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