

## Product Application and Specifications

### Product Description

HEATBLOC-ULTRA radiant attic barrier is formulated to be sprayed on the underside of the roof deck, rafters, ridge and gable ends. Applying a thin, even coat to these surfaces creates an effective radiant barrier that will stop 81% of the potential radiant energy transfer into the attic.

### Features and Benefits

- Low emissivity with 0.19 "e" value - Reduces heating and cooling bills
- Reflects up to 81% of radiant energy – Increases interior comfort level
- 100% seamless coverage of attic space – More cost efficient than alternative attic systems
- Does not alter magnetic fields - Will not disrupt attic mounted antenna or cell phone reception
- Breathable - Will not increase attic moisture
- One coat coverage on bare wood and primed metal – Fast application
- Application by spray, roller and brush – Easy to apply
- Low VOCs, very little odor

### For Best Performance

- Do not topcoat, must remain in contact with air.
- HEATBLOC-ULTRA is not designed to withstand any handling.
- Use shielded safety lighting.
- Do not tint.

### Be sure to follow proper ventilation instructions.

To maximize the effectiveness of HEATBLOC-ULTRA, a minimum of 1" of airspace is required between the HEATBLOC-ULTRA and the next substrate. Ensure appropriate personal protective equipment is used. Review Material Safety Data Sheet for further information.

### Compliances

ASTM C 1321

### Preparation

There is no need to prime most surfaces before applying HEATBLOC-ULTRA. All surfaces should be clean, dust-free, and dry.

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

Concrete must be fully cured. Remove all form release and curing agents. Rough surfaces can be filled to provide a smooth surface.

Mildew must be removed before painting by washing with a solution of 1-quart household bleach and 3-quarts warm water. Wear appropriate personal protective equipment. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow the surface to dry 48 hours before painting. **DO NOT ADD DETERGENTS OR AMMONIA TO BLEACH SOLUTION.**

### Application

HEATBLOC-ULTRA is designed for interior use only. Apply to the bottom side of roof decking (OSB, plywood, chip board, sheetrock, concrete or masonry), to primed or coated metal roofing, or to rafters and joists directly attached to roof.

Provide mechanical ventilation from a) home interior-to-attic-to-outside and b) outside-to-attic-to-outside. Run ventilation 10 minutes prior to use, during use and for at least 30 minutes after application.

Remove lid from Part B and use a spatula to put entire contents into the 5-gallon pail containing Part A. Mix thoroughly for 3 minutes with a squirrel cage type mixer before use. Make certain to only mix as much material as can be applied in one day. **DO NOT ADD WATER OR ANY OTHER SUBSTANCES TO THE MIXTURE.**

HEATBLOC-ULTRA may be applied by brush, roller, or sprayer. The preferred method is spraying. If using an airless sprayer, recommended pressure is 2,000 psi using tip size of 0.017" to 0.019". For best results use a spray pump size 3/4 GPM or greater. A 3/8" synthetic-nap roller can also be used.

The average coverage rate of HEATBLOC-ULTRA is 400 - 500 sq. ft/gallon depending on texture and porosity of the substrate.

Dries to the touch in 2 - 4 hours at 77°F (C) and 50% relative humidity.

### Clean Up

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

### Packaging

HEATBLOC-ULTRA comes in 2 parts and contains 4.3-gallons:

**Part A:** a milky-white liquid – 5-gallon plastic pail (3.6-gallons)

**Part B:** silver flake – 1-gallon metal can (9 lbs)

When parts A & B are mixed, they become a metallic silver liquid.

## Storage

Part A and B: Store in original containers in a clean, dry area between 40 and 90 degrees F (4 and 32 degrees C). Keep away from direct sunlight and keep from freezing. Both Parts A & B, stored in their separate containers, have shelf life of 15 months when stored at appropriate temperatures.

## Warnings:

**Part A:** CAUTION: Contains no hazardous ingredients in reportable concentrations as defined by 29 CFR 1910.1200 and WHMIS.

**Part B:** CAUTION: Contains Aluminum powder, Diacetone alcohol, Stearic acid.

## Precautions

**Part A:** 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/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

**Part B:** KEEP AWAY FROM HEAT, FLAME AND SOURCES OF IGNITION. Vapors are heavier than air. Keep container closed. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

**DO NOT STORE LEFT OVER, MIXED PRODUCT.**

## First Aid

**Part A:** 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.

**Part B:** In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. 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.

## Risks

**Both Parts A & B:** May cause skin, eye and respiratory irritation. Ingestion may cause irritation. Reports associate repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

## Proposition 65

**Both Parts A & B:** This product contains material listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

## VOC Content

**Both Parts A & B:** less than 50 g/L less water and exempt solvents when all components are mixed and applied per manufacture's instructions.

## Technical Data

| Property                  | Result             |
|---------------------------|--------------------|
| "E" value (emissivity)    | < or equal to 0.19 |
| Vapor transmission, perms | 11                 |
| Volume solids, %          | 14.40              |
| Weight solids, %          | 21.60              |
| Weight per gallon, lbs    | 9.10               |
| Viscosity, KU             | 60                 |
| Flash point, °F           | 147                |
| VOC content, g/L          | < 50 gr/liter      |
| Wet mil thickness, mils   | 4                  |
| Dry mil thickness, mils   | 0.6                |
| Flame Spread Index        | 0                  |
| Smoke Development Index   | 0                  |

## Limited Warranty Notice

Every reasonable effort is made to apply KEMPER SYSTEM exacting standards both in the manufacture of our products and in the information which we issue concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, KEMPER SYSTEM MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and KEMPER SYSTEM shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the KEMPER SYSTEM Technical Manager.

