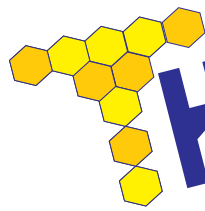


Thermokote is environment friendly and reduces energy cost



# HERMOKOTE

FLUID APPLIED CERAMIC INSULATION COATING



Fire Resistant



Waterproof



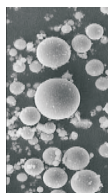
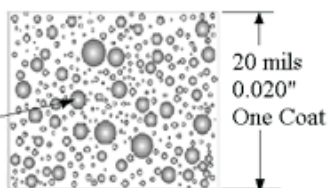
Noise Reduction

**Space shuttle**  
Insulation technology  
for your Buildings...

**SUPERSHIELD THERMOKOTE** is a fluid applied ceramic insulation coating, designed to insulate the building from both hot and cold temperatures in a single application. THERMOKOTE is installed just like any other coating products with brush or a spraying machine. Once installed the coating becomes a seamless continuous monolithic membrane, which provides not only insulation, but also acts a waterproof, fireproof and noise reduction system.

## Technology

Each bead represented is a hollow sphere



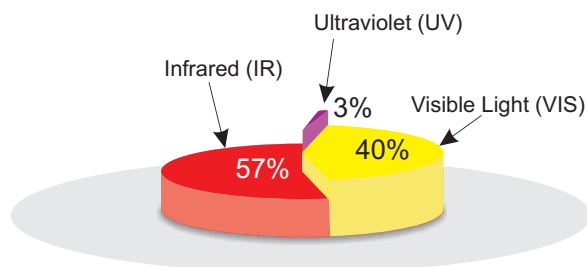
**SUPERSHIELD THERMOKOTE** system works with the implementation of common physics principles of reflectivity, conductivity and emissivity. Thermokote is highly efficient, energy saving, flexible coating developed from the advanced resins filled with supershield formulated vacuumed multi ceramic molecules. Thermokote uses a technology similar to the insulation tiles used in the space shuttles to withstand the re-entry heat.

## How Thermokote Insulates

Supershield formulated vacuumed multi ceramic molecules used in THERMOKOTE are tiny spheres (<100 microns) with a wall thickness of about 1/10th of the sphere diameter, a compressive strength of about 6500 PSI and a softening point of about 24000 C with reasonable chemical resistant, non-combustible property and poor heat conductivity.

Supershield formulated ceramic molecules are microscopic hollow vacuum spheres that resist thermal conductivity and suppress noise as the physics law states that nothing can move by conduction through a vacuum, since it represents an absence of matter.

## SUN ENERGY That Heats Your Building



## THERMOKOTE Blocks 95% of Solar heat energy

Overall Thermokote blocks 95% of solar heat energy getting into the building, the rest 5% of heat that enters is handled by the microspheres with its high dissipation and no conductivity character.

### ENERGY FROM THE SUN

UV-Ultraviolet rays contribute 3% of heat and is responsible for surface deterioration.

Infra-Red Rays contribute to 57% of heat.

Visible Lights-Contributes to 40% of heat.

### THERMOKOTE

Thermokote is U.V controlled and blocks 99% of Ultra violet radiation.

Thermokote blocks 99.5% of infra-Red Rays.

Thermokote blocks 92% of visual lights.

Once the coating is applied and cured to membrane the hollow microspheres in the coating shrink down tight as the water evaporates creating a layer of sealed cells. This layer acts as a thermal barrier covering the entire structure.

With the unique characteristics of these microspheres, supershield coating easily blocks 95% of radiant heat and as much as 99% of ultra-violet rays. When this 95% of solar heat getting into the building is blocked, the 5% of heat that enters is handled by the microspheres with its high dissipation and no conductivity character. THERMOKOTE when used in the interior walls will insulate and prevent loss of heat or cold generated inside the building in the similar manner.

THERMOKOTE attacks heat or cold penetration even before it enters the substrate. This allows the coating to deal with the thermal transfer as a problem and not as a symptom after it has already made way into your facility.

## How Thermokote Waterproofs

THERMOKOTE coating produces a unique Cross Linking Structure which makes the coating stronger over time thereby increasing the bonding properties with the substrate and within itself. This way the coating gains excellent water ponding capabilities, strength, UV resistance, longevity and flexibility. CLS provides great adhesion with minimal expansion and contraction on substrates like wood, brick, concrete etc.

CLS of THERMOKOTE blocks water but allows it to evaporate in the form of vapor (Variable Permeability), this prevents the membrane from bristling when the sun heat pulls moisture out of the surface. The CLS Provide excellent dirt picking resistance and tensile strength which can very well take the foot traffic.

# Product Range

## THERMOKOTE 100

[ Roof Coating ]

THERMOKOTE 100 is formulated to solve all roofing problems in single application. It is used in residential and commercial roofs to insulate and waterproof. THERMOKOTE 100 coating provides matchless resistance to adverse weather. It prevents heat or cold penetration before it even enters the substrate.

The unique CLS of THERMOKOTE insulation system allows the roof coating to become stronger over time. This means that the coating has excellent strength, longevity and flexibility. The CLS provide excellent dirt picking resistance and tensile strength which can very well take the foot traffic. THERMOKOTE 100 gives you unequalled bonding and durability for years to come.

Benefits: High insulation, waterproofing capabilities, less load, easy to apply

## THERMOKOTE 200

[ Interior Wall Coating ]

SUPERSHIELD THERMOKOTE 200 is a premium quality Interior coating enhanced with the SUPERSHIELD THERMOKOTE Insulation technology to retain the cold or heat generated inside the building.

Benefits: High insulation, Durable premium water Based Emulsion, Rich and Smooth Finish, Anti Fungal and Bacteria, Abrasion Resistant, Excellent Wash ability, Stain Resistant, Ready to Use, available in different colors.

## THERMOKOTE 300

[ Exterior Wall Coating ]

SUPERSHIELD THERMOKOTE 300 exterior coatings meet high standards of Insulation, protection and durability. Effectively protect buildings from weathering and surface dirt accumulation

Benefits: High insulation, Excellent Wash ability, Fungal and Mildew Resistant, Weather Resistant, Excellent Color retention, Bridges Hair line cracks, available in different colors.



## Benifits

- Temperature on the substrate stays within 4°C of the ambient temperature
- Up to 40% savings on cooling and heating charges
- Light weight 0.75 kg per meter square
- Waterproofs the substrate and excellent water ponding sustainability
- Non toxic and can be used in food storage units
- Improves the acoustic properties of the building, good noise reduction
- Excellent Fire Protection and smoke suppressant
- Reduces expansion / contraction and thermal stress on the substrate
- Excellent elongation and recovery properties
- Construction and eco-friendly
- Very High resistance to atmospheric degradation
- No-joints, forms continuous seamless membrane
- Beautifies and enhances the structural life
- Pays you back by saving the cooling and heating charges, reduces maintenance cost
- Lower the surrounding air temperature in the environment
- Reduce pollution in urban areas by bringing down energy generation

## Recomended Use

SUPERSHIELD THERMOKOTE can be used in roof slabs, interior and exterior walls, metal walls, roofs and asbestos, cooling system, sport facilities, storage tanks, pipelines, mobile and modular homes and many more.



## Technical Data

**Container size:** 5, 20 ,200 liters

**Components:** One part

**Coat thickness:** 300 - 700 microns

**Weight:** 0.79 kg/liter

**Volume solids:** 75%

**Color:** Bright White

**Sheen:** Flat

**Base:** Acrylic

**Elongation:** 690%

**Permeability:** 49.3 Grains Per Sq. meter Per Hour (Cyclic Salt Fog ASTM B-117)

**Accelerated aging:** Excellent (2000 hrs)

**Abrasion resistance:** Mod-High

**Cross hatch adhesion:** 100%,5A (excellent)

**Pull-off-Strength:** 360 + psi

**RvE:** 9 - 13

**Conductivity:** 0.098 W/m/K (0.67 Btu-in/ft<sup>2</sup>-F-hr)

**UV Reflection:** 100% ASTM D-5894

**Flame Spread:** 5 ASTM E-84

**Smoke Developed:** 5 ASTM E-87

**Fire Rating:** Class A

**Application Temps:** 50°F to 300°F (10° to 148°C)

**Operation temps:** -60°F to 500°F (-51° to 260°C)

**VOC content:** None

**Tinting:** Standards acrylic tints

**App. Method:** Airless sprayer , brush. Roller.

## Application Methodology

**Surface Preparation:** All surfaces must be clean and free from laitance (efflorescence), dust, dirt, oil and grease. Cracks, Joints and Pipe Outlets has to be treated as per the SUPERSHIELD specification.

**Primers:** No primer is usually required. Our SBR based SUPERSHIELD BONDPLAST is used as a bonding coat to obtain good adhesion between a bitumen substrate and our water-based roof coatings. Rusty surfaces require rust control prior to the application of the roof coats.

**Thinning:** Can be thinned with clean water up to 10% to replace evaporation losses or to adjust with the spray equipment.

**Caution:** excessive thinning will cause the coating to lose adhesion and elasticity.

**Coverage:** Apply Thermokote roof coating @ 500 ml / meter square. Product can be applied in successive coats to increase insulation and waterproofing ability. Minimum interval of 8 hours is required for applying the successive coats.

**Application:** Roller or airless spray application is recommended. Very small areas may be brushed.

**Airless Spray:**

Tip Orifice .031 inches

Atomizing Pressure 2200 - 2500 psi

Fan Spread 60 Degrees

Pump / Minimum 3.6 Liter per minute at 2500 psi

Filter / Remove filters & screens

**Mixing:** Stir each container thoroughly using low speed mechanical agitation to avoid air entrapment.

**Warranty:** 5 year limited warranty and extendable up to 10 years\* .

When installed properly, this product will help reduce energy costs. Actual savings will vary based on geographic location and individual building characteristics.



At SUPERSHIELD we invent, develop, produce and install speciality construction chemicals to make people's life better by protecting and improving the quality of the Man-made structures worldwide.

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**Technical Support**

Additional information on our product and answers to frequently asked questions visit [www.supershieldindia.com](http://www.supershieldindia.com) or call us on 09360050605.