

# PRODUCT DATA SHEET



## ROKOAT TechShield Impermeable Insulation

### Overview

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ROKOAT TechShield Impermeable Insulation coating is a unique, ultimate performance insulation, corrosion, sound and moisture protection coating. ROKOAT TechShield Impermeable Insulation is an epoxy ceramic based coating that is impervious to heat, cold, sound and water providing extreme insulation.

Applied correctly, ROKOAT TechShield Impermeable Insulation protects against damage from standing water and can remain under water permanently.

The product maintains its flexibility, which prevents surface cracking. Particularly easy to use with long pot life, this remarkable product offers high insulation, high reflectivity, high emissivity, encapsulates and reduces friability of virtually all roof and construction material (including asbestos).

ROKOAT TechShield Impermeable Insulation is chemically inert and withstands acids, alkalis, animal fats, grease and oils.

### Features

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- Very high insulation capacity – Conduction, Radiation & Convection heat sources.
- Insulates and retains flexibility at temperatures from -97°C to 454°C.
- At 254 µm (0.25 mm) thickness the K value is 0.002 WmK or an equivalent R value greater than 30.
- Does not just REFLECT but INSULATES. Surface can become dirty and not lose its insulation values.
- Water Proof - can be applied over wet surface and remain under water.
- Can reduce sound by up to 68%.
- Very little preparation required. Apply directly over surface rust (not rust peaks).
- Protect against heat and cold extremes, mildew, alkali, UV, oils and grease.
- UV, Weather, Chemical, Salt and Abrasion Resistant.
- Extreme adhesion to substrate.
- Extremely durability and flexibility – withstands hail of up to 6cm moving at 225kph.
- Reduces thermal shock in roofs.
- No top-coat necessary however, further coats can improve characteristic values.
- Contains no zinc, lead or chromates.

### Application Methods

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\* Detailed application methods can be found in the Product Application Guide.

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## Applicable Surfaces

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Typical Applications: Roofs, ship hulls, ceilings, metal buildings, ducts, concrete walls, basements, piping.

Can be applied directly over surface rust and directly to all metals, PVC, concrete, EPDM and cap sheets. The coating can also be applied to wood, stucco, sheet-rock, and virtually any substrate.

Not recommended for - Teflon, high-plasticized vinyl's, polyethylene\*, and silicone rubber.

\* Can be applied to polyethylene with the use of ROKOAT TechShield Bonding Primer.

ROKOAT TechShield Impermeable Insulation coating can be applied to a dry or wet surface (apply in the rain if required). Adheres to practically all surfaces, including EPDM, with remarkable flexibility.

## Application & Storage Considerations

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Should not cause skin or eye irritation, however if irritation occurs flush area with clear water \*\*

\* Refer to Product Application Guide.

\*\* Further information can be found in the Product Material Safety Data Sheet (MSDS).

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## Properties

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<b>Colour</b>	White
<b>Viscosity</b>	13060 centipoise @ 75°C @ 2.5 RPM
<b>Percent of Solids</b>	75%
<b>Odour (liquid)</b>	Naphthalenic
<b>Odour (cured)</b>	None
<b>V.O.C.</b>	<5%
<b>RoHS</b>	Compliant
<b>Coefficient of Friction</b>	N/A
<b>Thermal Stability (cured)</b>	454°C
<b>Thermal Conductivity</b>	0.0139 Btu in/h ft <sup>2</sup> °F / 0.002 W / m / k
<b>Conical Bond</b>	N/A
<b>Hardness</b>	Shore A Hardness 85
<b>Cross cut adhesion</b>	210 pounds / sq. inch
<b>Specific Gravity</b>	N/A
<b>Average applied dry film thickness</b>	Application Specific
<b>Estimated Coverage Rate</b>	11.1 sq metres / US Gallon @ 254µm
<b>Transfer to surrounding material</b>	N/A
<b>Permeability</b>	0.7 perms
<b>Dry (Tack to touch)</b>	1 – 2 hours at 25-28°C (80°F)
<b>Semi-cured (time-ambient)</b>	8 hours at 25-28°C (80°F)
<b>Full Cure Time (ambient)</b>	3 days at 25-28°C (80°F)
<b>Cleaning</b>	MEK

## ASTM Test Battery

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ASTM B117 500 hour Salt fog test – Passed

ASTM 518 Thermal Conductivity 0.0139 Btu(in)/(h)(ft<sup>2</sup>)(F), metric 0.002 w/m/K - Excellent

ASTM D-2240 Hardness 85 Shore Durometer

ASTM E108-91A UBC32-7 Class A Fire Rated

ASTM E 84 Class A Fire Rated

ASTM D-638 Tensile Strength 1393 PSI

ASTM E-96 Water Vapour Transmission 0.7 perms

ASTM G-53 500 hour accelerated weathering test, bend double with no cracking, highly flexible

ASTM 1640, D-92, D-1644A, D-2196, D-696, D-570, C-836, D-1652, D-1259

Flexibility is retained in sub-zero conditions (down to -97°C)