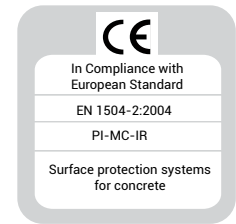


**FLUID APPLIED CERAMIC INSULATION COATING**

- One component water based, environment friendly
- High Reflectivity and low conductivity
- Dissipates thermal energy faster due to very high emissivity
- Acts as a elastomeric waterproofing membrane
- Excellent adhesion to most building materials
- Class A Fire Rating
- Enhanced with Supershield Crosslink and Enviro-Stable film technology
- Provides anti-condensation protection
- Reduces sound waves
- Energy efficient and long lasting
- Suitable for existing and new buildings

**PRODUCT DESCRIPTION**

Supershield THERMOKOTE 100 is a one component waterborne liquid applied insulation coating with high reflectivity, emissivity and very low conductivity. It is designed to insulate both hot and cold 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, fire resistant and noise reduction system. Supershield Thermokote 100 is a highly durable flexible coating developed from advanced resins that are based on Supershield CROSSLINK Technology and filled with Supershield formulated vacuumed multi ceramic molecules. Thermokote is further enhanced with Supershield Enviro-Stable film technology which provides excellent resistance to dirt, mold, mildew and carbonation.

**SUPERSHIELD CROSSLINK TECHNOLOGY**

The CROSSLINK TECHNOLOGY from Supershield enables, long chain polyurethane macromolecules to be incorporated in a water medium, forming stable dispersion. Supershield CROSSLINK combines the high performance of the polyurethane dispersion with the application ease of a one-component water based coatings, in an ecological, low VOC, environmental friendly product. The special properties of Supershield CROSSLINK makes Thermokote 100 exceptionally durable and resistant to UV, weather and water as a result it prevents corrosion and surface deterioration.

**ENVIRO-STABLE FILM TECHNOLOGY**

Supershield Enviro-Stable film technology is developed to enhance the dry film properties of the coatings when subjected to harsh environmental conditions.

**RECOMMENDED FOR**

- Roof Slabs
- Interior and Exterior Walls
- Metal Walls
- Roofs and Asbestos
- Cooling System
- Sport Facilities
- Storage Tanks
- Pipelines
- Mobile and Modular Homes

The information contained herein is based on our long-term experience and the best of our knowledge. We can, however, make no guarantee since for a successful outcome, all circumstances in an individual case must be taken into consideration. Indications of quantities required are only averages which in certain cases might be greater.



## FLUID APPLIED CERAMIC INSULATION COATING

**TECHNICAL DATA**

Product Code	SIC101
Colour and Appearance	White Liquid
Density	1.4 Kg/litre
VOC Content	< 75 gm/Ltr <sup>2</sup>
Service Temperature	-20°C to +80°C
Conductivity	0,098 W/m <sup>2</sup> /K
Solid Content	ASTM 2369 : 71
Elongation @ break	ASTM D412 : >380%
Tensile Strength	ASTM D412 : > 3.1 N/mm <sup>2</sup>
Solar Reflectance	ASTM E 903-96 : 95%
Solar Emittance	ASTM E408 : 0.90

**Performance characteristics for CE certification according to EN 1504-2:2004, 2+**

TEST TYPE	STANDARD	PERFORMANCE
Permeability	EN 1062-6	> SD 50m
Permeability to water vapour	EN ISO 7783-1,2	Class I SD< 5m
Capillary Absorption and Permeability to water	EN 1767	W < 0.1
Strength of Adhesion to indirect traction	EN 1542	≥ 0.8 N/mm <sup>2</sup>
Thermogravimetry	EN ISO 11358	±5% of reference with respect to loss of mass @ 600°C
Infrared spectrum	EN 1767	Position and relative intensities of the main absorption band matches with reference

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**APPLICATION GUIDELINES**

**SURFACE PREPARATION**

All surfaces must be clean and free from laitance (efflorescence), dust, dirt, oil and grease. Minimally, surfaces should be power washed prior to coating, providing this will not damage the roof or cause leaks.

**CONSUMPTION**

0.64 – 1.26 litre/ m<sup>2</sup> applied in two or three layers. This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption. For Thermokote 100 to be effective on roofs a minimum of 350 microns dry film thickness is recommended.

**Coverage:**

- 1.26 Litre/ m<sup>2</sup> @ 700 microns
- 0.64 Litre/ m<sup>2</sup> @ 350 microns (minimum)

**SPREADING RATE PER COAT**

m <sup>2</sup> /litre	WFT(microns)	DFT(microns)
3.125	275	175
1.587	567	350

**PRIMING**

Prime absorbent and brittle surfaces like concrete, cement screed, mortar, plaster, wood with Thermokote 100 diluted with 10% -20% clean water primer. For very brittle surfaces and/or demanding applications prime with SUPERSHIELD MC PRIME. Allow the primer coat to cure.

**THINNING**

Thinning is not recommended and should be avoided as it might cause the coating to lose its properties, however to replace any evaporation losses or to adjust to spray equipment configuration upto 50ml of water per litre of Thermokote100 may be added.

**CURING**

Temperature	Cure Time
50-60° F	20-24 days
61-70° F	16-20 days
71-80° F	12-18 days
81-90° F	8-12 days
91-100° F	5-8 days
>100° F (> 37° C )	2-5 days

**APPLICATION**

Stir well before using. Pour Thermokote 100 onto the prepared / primed surface and lay it out by roller or brush, until all surface is covered. You can use airless spray allowing a considerable saving of manpower. After 6-24 hours apply another layer of the Thermokote 100. For demanding applications and better waterproofing results apply a third layer of the Thermokote 100. Reinforcement with the Supershield Refab may be considered at problem areas, like wall-floor connections, chimneys, pipes, waterspouts, etc. In order to do that, apply on the still wet Thermokote 100 a correct cut piece of Supershield Refab, press it to soak, and saturate again with enough Thermokote 100. For detailed application instructions with the Supershield Refab, contact Supershield. Do not apply Supershield Thermokote 100 over 0.5 mm thickness (dry film) per layer.

**LIMITATIONS**

- Do not apply the Thermokote 100 in negative (degC) temperatures or when rain or frost is imminent in the next 48 hours. For best results, the temperature during application and cure should be between 5° C and 50° C. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish. Do not apply Thermokote 100 on substrates that have rising moisture. Always apply during falling ambient and substrate temperature. If applied during rising

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## APPLICATION GUIDELINES

temperatures “pin holing” may occur from rising and expanding air

- Thermokote 100 is slippery when wet. In order to avoid slipperiness during wet days, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface
- Ensure that each coat of Thermokote 100 is totally dry and the surface is without pinholes before applying further coats
- Ensure that the applied Thermokote 100 has sufficient curing time before any such inclement weather is expected
- Do not allow temporary ponding or moisture (dew, condensation etc) to remain between coats on any horizontal surfaces or until the final coating has totally cured. Brush or mop surface water away during this time
- It is recommended to carry out adhesion and compatibility tests with the primer prior to application of following coats
- Thermokote 100 is to be used mainly in exposed applications and is not for inverted buried systems
- Whilst Thermokote 100 is resistant to most commonly encountered atmospheric pollutants, proprietary cleaning solutions and environmental spoilage, the suitability of the product for use in applications with increased chemical resistance requirements should first be established in consultation with Supershield.

The following points to be considered when Thermokote 100 is used for waterproofing purposes:

- Thermokote 100 should not be applied on roofs subject to long-term ponding water especially with subsequent periods of frost. In cold climatic zones for roofing structures with a pitch of less than 3% appropriate drainage measures must have to be considered
- Thermokote 100 should not be subject to permanent water immersion

## HEALTH AND SAFETY

Thermokote 100 contains chemicals, which may cause skin irritation. For personal precaution, protective gloves and goggles are recommended to be worn during handling of this product. If product gets in contact with the eyes, flush immediately with clean water and seek medical assistance if symptoms prolong.

## STORAGE

Thermokote 100 pails should be stored in dry and cool rooms for up to 18 months. Protect the material against frost and direct sunlight. Storage temperature: 5°C - 45°C. Products should remain in their original, unopened containers.

## PACKAGING

20 Litre Pails.