BIOBASED

COOL-FX

TECHNICAL DATASHEET





PRODUCT INFORMATION

Category	Temporary roof cooling coating
Description	Cool-FX Biobased is a temporary water-based roof cooling coating specifically developed to reflect solar radiation on barns, skylights, and commercial/office buildings (tar, gravel, and metal roofs).
Properties	• Reduced building heat gain, as a white or reflective roof allow a decrease of internal building temperature of 2 to 7°C (35°F to 44°F) compared with a non-protected roof. • Savings of up to 15% the annual air conditioning energy use of a single-story building. • Improved comfort to people or animals in buildings that do not have air conditioning. • Gradual wear of the product and return of the roof to its original color due to weather effects so optimal heat absorption is achieved in the wintertime. • This water-based coating is biobased and biodegradable.
Recommended use	Suitable for skylights and roofs of barns, commercial buildings and offices.
Recommended surface	• Galvanized and metal roofs • Tar and gravel roofs • Bitumen roofs • Skylights

TECHNICAL SPECIFICATIONS

Physical state	Liquid
Colour	Beige
Odour	Neutral
pH	8.8 – 9.8
Flammability (solid, gas)	Non flammable
Density	1.43 g/cm^3
Solubility	Insoluble in water. In water, the material disperses
Viscosity	4300 mPa.s
Wear-resistance	Will gradually wear off over the course of a season
Biodegradability	Biodegradable according to OECD (European norm) 301F : biodegradation in water, in 28 days. Biobased formulation.
Transport regulation (ADR, RID, IMDG, IATA, IDN)	No restrictions

STORAGE CONDITIONS

Packaging	20 kg bucket (= 14,2L) 1 pallet contains 44 buckets
Shelf life	Unopened containers have a shelf life of 2 years. Store Cool-FX Biobased at a temperature between 5 °C and 30 °C. Keep out of frost. Keep container closed when not in use. Keep only in the original container in a cool, well ventilated place away from direct sunlight.

This technical datasheet is based on many years of experience. We can not be held liable for any damages resulting from the use of this product or any damages beyond our control. The customer should check, using the means normally available to him, whether the products supplied are suitable for the planned application. If in doubt, consult our technical specialists via welcome@lumiforte.com.

Cool-FX is a brand of Lumiforte®

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INSTRUCTIONS FOR USE

Application

The surface must be clean, dry and free from dust before the application of Cool-FX Biobased. A clean surface improves durability.
Shake or stir before use. Mix Cool-FX Biobased with clean water. Mix well until a homogeneous liquid is obtained. The spray liquid can be applied with standard spray equipment. Thoroughly clean spray equipment with water after use.

Weather conditions

- Wind speed of less than 2 m/s (7 km/h)
- For fast drying: relative humidity (RH) < 80 %
- Do not apply Cool-FX Biobased to a wet surface or when rain is expected

Equipment

The application is done best with standard spraying equipment. Either by hand, by using a spray gun, or with a spraying drone.

Personal protection

- Safety glasses
- Protective gloves

Quantity

Concentration	Area in m² per bucket
1 to 3	±200 m² / ±2153 ft²

(Concentration: 1 part Cool-FX Biobased to # parts of water)

- In the case of a corrugated roof, bear in mind that the surface area increases as the depth of the corrugation increases.
- In the case of a sloping roof, you might need a lower dilution (between 1 to 2 and 1 to 3), to avoid the coating from flowing of the roof to quickly.

Solar Reflective Index

	Cool-FX 1:1	Cool-FX 1:2	Cool-FX 1:3
SRI (average)	104	104	99
Hemispherical emissivity	0.91	0.87	0.82

The Solar Reflective Index (SRI) is a measure that describes a material's ability to reflect sunlight and dissipate heat. It is often used to assess the energy efficiency of building materials, such as roof coverings. SRI values range from 0 to 100, with higher values indicating that the material is better able to reflect sunlight and absorb less heat. The SRI can exceed 100 for more reflective coatings than standard white paint, and can even be negative for black coatings.

Wear-resistance

Cool-FX Biobased is a temporary coating that will wear off in time according to the concentration and weather circumstances. The cooling effect of Cool-FX Biobased is on average 4 months.
Cool-FX Biobased used on a porous surface will generally require more time to wear off completely.

Removal

No specific cleaner is needed to remove Cool-FX Biobased.

ENVIRONMENT

Environmental precautions

- Prevent discharge into surface water as discoloration will occur.
- Dispose of the product safely in accordance with local and national regulations.

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