



# Technical Datasheet °CoolRoof

## DESCRIPTION

°CoolRoof by Cool Roof France is a roof coating system that aims at cooling down building interiors, and avoid overheating caused by solar radiation, by reflecting it before it is absorbed by the roof and the whole building. Two products constitute the °CoolRoof system, that can be applied one after another onto most of roofing materials. They can be applied mechanically (airless) or manually (roll, brush) :

- The **BaseCoat** confers the thermoreflective and emissive properties. It allows adhesion onto the roof. It is a waterborne monocomponent product, opaque white, VOC-free.
- The **TopCoat** is the anti-UV finish, and avoid coating dirt pick-up (organic and mineral pollution from the roof surroundings). In fact, any UV degradation, or important dirt pick-up of the coating, would lead its thermoreflective properties to decrease. The TopCoat as well is a waterborne monocomponent product, opaque white, VOC-free.

## CHARACTERISTICS

	BaseCoat	TopCoat
Aspect	Matte	Semi-glossy
Colour	White	White
Dry extract by weight (%)	72 ± 2	59 ± 3
Density at 20°C	1,50 ± 0,05	1,43 ± 0,05
VOC (g/L)	0	0
Packaging	25kg metal pails	20kg metal pails
Conservation	Store in a dry place, at a controlled temperature (5 to 30°C), up to 12 months from the date of manufacturing, in its original tightly closed packaging.	

## PROPERTIES

Solar reflectance	NF EN 410	0,84
Thermal emissivity	EN 15976	0,91
Solar Reflectance Index (SRI)	ASTM 1980	106

These properties may vary according to substrate morphology

## COMPATIBLE MATERIALS

Roof slope : 2° to 30°

Smooth substrate : coated steel deck, polycarbonate\*, corrugated polyester\*, steel and aluminum\*\*

Rough or porous substrate : sanded bituminous membrane, concrete (with priming layer), natural tile and slate, fibre cement

Coarse or very porous substrate : bituminous membrane covered with slate chippings

**Do not apply onto TPO, PVC or EPDM membranes**

**Do not apply in stagnant water areas**

\* Clear materials become opaque when applying °CoolRoof. To keep materials translucent, our °CoolGlass product is convenient.

\*\* According to their condition (new or corroded), metals need an appropriate surface treatment before applying °CoolRoof to ensure its long-term adhesion.

## QUANTITIES

	BaseCoat	TopCoat
Smooth substrate	450g/m <sup>2</sup> in one layer	100g/m <sup>2</sup> in one layer
Rough or porous substrate	600 à 700g/m <sup>2</sup> in two layers	150g/m <sup>2</sup> in one layer
Coarse or very porous substrate	900g/m <sup>2</sup> in two layers	150g/m <sup>2</sup> in one layer

**Please observe 24h drying time between each layer**

## APPLICATION REQUIREMENTS

- Air : Temperature range from 10 to 35°C (BaseCoat), from 15 to 35°C (TopCoat), relative humidity < 80%. Do not apply if there is a chance of rain within 24h.
- Substrate : From 10 to 35°C, substrate must be perfectly clean and dry. Do not apply in area where water often stands.
- Do not spray-coat if wind speed is over 50km/h
- Knead the products for a few minutes before using. Do not dilute, or mix with another product.
- Do not leave pails open, or in direct sunlight, during application process.
- Observe 24h drying time between each BaseCoat and/or TopCoat layer.

## EQUIPEMENT AND CLEANING

- **General** : Operator protection with gloves, FFP mask and goggles.
- **Airless spraying** : Gas-powered or electric high-pressure sprayer. Minimum debit of 5.7L/min. Nozzle size from 5/17 to 6/31 depending on required dosage. No additional filter needed/
- **Manual** : Brush or roll
- Clean tools with clear water, right after using.
- Rinsing waters must not be discharged in the environment. Please refer to MSDS for product waste codification.

## MAINTENANCE

To maintain the °CoolRoof thermoreflective performance over time, cleaning the whole surface once a year is necessary. Cleaning is achieved by washing the coating with low-pressure water, using a brush if needed.