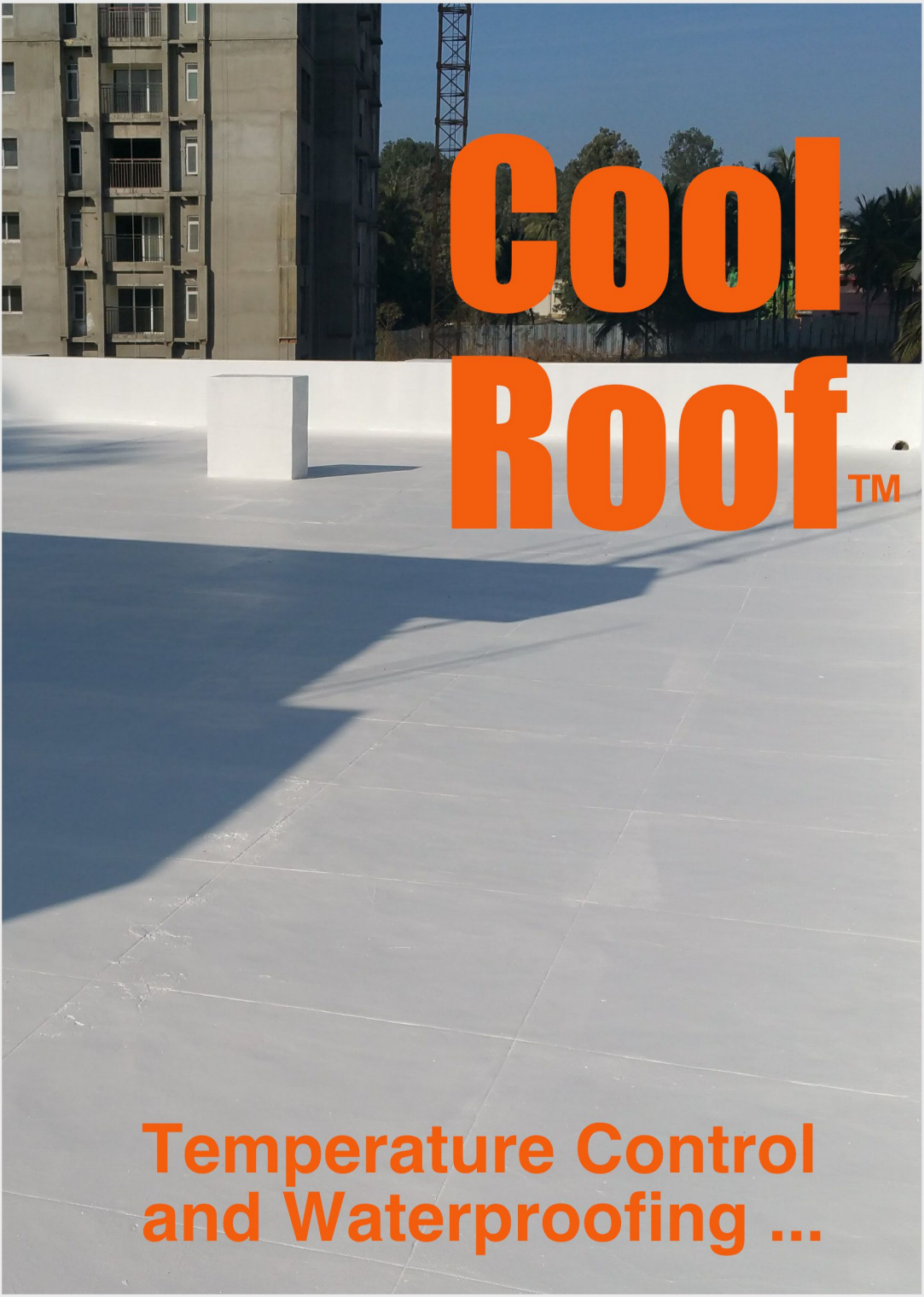


Cool Roof™

Temperature Control and Waterproofing ...

CoolRoof™

CoolRoof™ is a white coating that reflects more than 90% of the radiation heat from the sun. Concrete and metal roofs show a 10-15° C reduction in surface temperature, on hot summer days, with a coating of CoolRoof™. With a simple IR thermometer, that we are familiar with, it's easy to measure and verify the temperature drop.

CoolRoof™ achieves a 5-8° C drop in room temperature. Besides reflecting heat from the sun, it also forms a barrier to heat transfer by conduction. This is engineered by incorporating particles that impart a low thermal conductivity (K) to the coating. This mechanism is not possible with a simple white paint.

After CoolRoof™

Before CoolRoof™

Usage

CoolRoof™ is applied with a paint roller brush. Consumption is between 20 to 25 grams/sft and the coating thickness is between 250 to 300 microns. The product needs the standard skill of a painter. It can also be done as a DIY project.

For metal roofs, before applying CoolRoof™, the surface has to be cleaned. Dust and lose paint has to be removed.

For concrete roofs, the following key steps should be followed for best adhesion of CoolRoof™ and long life.

- ☛ Surface cleaning
- ☛ Epillary™ coating for waterproofing and adhesion
- ☛ epoCoat™ for reinforcing the concrete surface and also for additional waterproofing

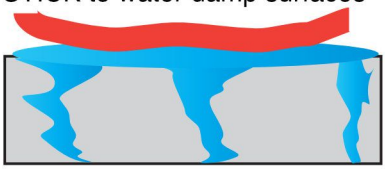
Cleaning

Commonly available portable pressure washers (10 MPa / 100 Bar) are required to dislodge dirt and mildew, and clean the surface of contaminants.

Wetting the surface with water and broadcasting bleaching powder, along with manual brushing, will also speed up the removal of mildew.

Cleaning the surface with a soap solution, followed by flushing it with water, is also recommended.

Polymer coatings DO NOT STICK to water damp surfaces



Epillary™ applied on substrate

Epillary™ membrane

Epillary™

Epillary™ is an epoxy based two part (A and B) aqueous emulsion. When mixed and applied with a paint roller brush, it penetrates into the pores in the concrete by capillary action.

It begins to gel in about 30 minutes and is dry to touch in 4 hours. A second coat can be applied soon after this. Complete cure takes 24 hours. The consumption is about 10 grams/sft/coat.

When Epillary™ is applied the liquid appears white. However, after curing, it turns into a hard solid clear coating. It also enhances the native color of the concrete and gives it a wet appearance.

Epillary™ is very important for other coatings to stick to concrete surfaces. Without it, most coating will simply de-bond in a few days or weeks. Besides helping as a base coat and adhesion layer, Epillary™ is an excellent barrier to water and works as a thermoset polymer waterproofing layer. We strongly recommend using two coats.

epoCoat™

epoCoat™ is an epoxy based two part (A and B) coating. When mixed and applied with a paint roller brush, it forms a tough and strong film. It must be applied after Epillary™.

It begins to gel in 30 minutes and is dry to touch in 6 hours. Complete cure takes 24 hours. A second coat should only be applied after the first coat has completely cured. The consumption is about 10 grams/sft/coat.

What is the need for using epoCoat™? Concrete surfaces take a lot of wear and tear over time, from exposure to wind, rain and sun. If not protected, it will become brittle and deteriorate. The easiest way to prevent this is to reinforce it with a thermoset solid polymer coating.

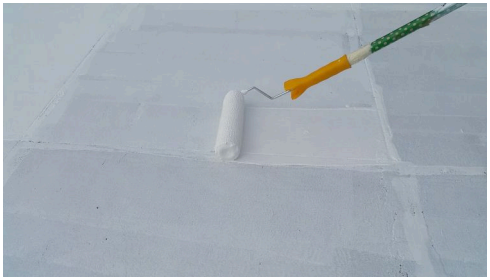
CoolRoof™ - Application

As previously described, the concrete surface must be cleaned, treated with Epillary™ for excellent bonding, and reinforced with epoCoat™ for improving structural integrity of the concrete.

CoolRoof™ is ready to use straight out of the can. Mix the product prior to use.

Transfer the material to a paint tray.

It is not recommended to apply the product in direct overhead sun, such as in the mid-afternoon. It is preferred to apply it in the early to mid morning, and in the late afternoon to evening time frame.



The roller used can be of any type. A medium fiber length is preferred to load sufficient material for the transfer.

The first coat consumes about about 10 to 15 grams/sft. The second coat will consume less, about 10 grams/sft. The curing time for each coat is about 1-2 hours, under normal conditions of temperature and humidity.

CoolRoof™ when applied as per the guidelines in this brochure will give many years of reliable service, even over 10 years if maintained well periodically.

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