



GENERAL REFLECT PAINT PLUS

Water-soluble ceramized reflective white paint for bituminous membranes

DESCRIPTION

White water-based paint, formulated with selected synthetic resins, special ceramic pigments and additives that confer high solar reflectance properties.

ADVANTAGES

- It waterproofs and protects against atmospheric agents and UV rays.
- It creates a highly reflective shield against UV rays, granting not only an excellent thermal insulation for the outside, but also for the inside.
- It reduces the energy consumption due to summer air-conditioning.
- It improves the efficiency of photovoltaic panels.
- It prevents surface fast aging.
- Excellent grip and elasticity.
- Easy to apply.
- Stable colouring over time.
- Low maintenance, additional protection is not needed.
- Odourless and non-flammable product.
- Non-toxic, solvent-free.

APPLICATION FIELDS

It covers and decorates the following surfaces:

- Bitumen membranes and bituminous corrugates panels.
- Waterproofing works with hot-applied distilled bitumen or cold-applied bitumen emulsion.
- Surfaces made of concrete, fibre-cement, wood, metal, plaster, shingles and roof tiles.

SURFACE PREPARATION

- Make sure that the surface is free from detached parts, loose debris or non-adherent parts, coatings, rust, powder, disarming oils and carefully clean the surfaces, that must be firm and dry.
- Before application fastness and efficiency of water run-off points must be checked.
- The product needs to be protected from rain, dew, fog until fully dry: humidity and low temperatures will slow the drying time required.

APPLICATION

- It can be applied by brush, broom, roller or spray.
- Mix carefully before use.
- Apply the first coat of product after dilution up to 10% with water.
- The second or further layer should be applied perpendicular to the previous one without dilution or up to 5% and when the first layer is completely dried (after 6 h).
- In case of bitumen membranes finished on the upper surface with a non-woven textile, apply more than 2 layers to obtain enough covering.
- After use, clean the tools with water. If the product had dried on them, remove it with warm water or synthetic thinners.

CONSUMPTION

- Apply at least 2 layers to give homogeneity. The total consumption depends on the nature and degree of porosity of the surface, usually it is between 200÷300 g/m² on old smooth bitumen membranes and between 450÷650 g/m² on slated membranes.

The reported data are medium and indicative data related to the current production and they can be updated in any moment without notice by General Membrane SpA. The technical information provided by GENERAL MEMBRANE SpA represent its best technical knowledge on the characteristics and the proper use of the product. Considering the different and several fields of use and the possible combinations of specific elements and situations not depending by General Membrane, the company does not take any responsibility for results. It is the buyer's responsibility to determine the suitability of the product for the intended application.





WARNING

- We recommend to apply the product at room temperature between +5° C and +35° C, avoiding extreme weather conditions such as heat and cold or simply fog, rain and frost.
- Don't apply on hot surfaces as the drying process will be over-accelerated, resulting in worst condition of cohesion and adhesion on the surface
- During winter the application should be done during the first hours in the afternoon to allow a correct drying (excessively humid days are to be avoided in any case).
- We recommend to not apply the product on just laid bituminous surfaces, which could still release hydrocarbons and cause adherence problems of the film on the liquid membrane.
- It's advisable to carry out a preliminary application test in each case to check the correct compatibility of the product with the substrate
- If the surface is made of insulating panels, a renovation is suggested within shorter times.
- It can be stepped on only in case of maintenance.
- Do not use it to seal surfaces or containers suitable for edible liquids, drinking water or others, that is in contact with solvents or mineral oils.
- Do not use on surfaces subject to rising or strong water pressure.
- Frequent maintenance and cleaning of the surface is suggested to maintain the high reflectance.
- Keep the product away from frost. The product must be applied or stocked at a temperature above +5° C. Once frozen the product cannot be reused.
- For further information please ask for safety datasheet.

PACKAGING

Metal or plastic pails of 5, 10, 20 kg.

TECHNICAL DATA

MAIN CHARACTERISTICS		
Aspect		Thixotropic fluid paste
Colour		White
Shelf life in closed original container		24 months
Solid Content (m/m drying at 130°C)	EN ISO 3251	(66÷72)%
Brookfield viscosity (at 20°C ,Impeller n.5; -10 rpm)	EN ISO 3219	(6.000±1.200)cP
Density (at 20°C)	EN ISO 2811-1	(1,45÷1,55)kg/l
pH (a 20° C)		7,0÷8,5
Drying time (out of dust)		30÷60 minutes*
PERFORMANCE CHARACTERISTICS - EN 1504-2 SURFACE PROTECTION SYSTEMS FOR CONCRETE (C COVERINGS – PRINCIPLES: PI MC IR)		
Permeability to CO ₂	EN 1062-6	S _D > 50 m
Water vapour permeability	EN ISO 7783	Class I (S _D < 5 m)
Liquid water permeability	EN 1062-3	w < 0,1 Kg/m ² ·h ^{0,5}
Tensile bond strength (by pull off)	EN 1542	≥ 1 N/mm ²

* Measures have been recorded with a temperature of 23°C and a moisture of 50%. Declared data can change depending on the thickness of applied product and on the specific conditions of the construction site: temperature, humidity, ventilation, absorption capacity of surfaces.

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SOLAR REFLECTANCE, THERMAL EMISSIVITY, SOLAR REFLECTANCE INDEX

Engineering Department Enzo Ferrari / EELab Test Report – University of Modena and Reggio Emilia

Solar Reflectance Index (SRI) ASTM E1980-11	Thermal Emissivity (E) ASTM C1371-15	Solar Reflectance (R) ASTM E903-12	Surface Temperature (T _s)
103%	92%	82%	43,4 °C

LEED Certification – LEED Protocol NC 2009 Italy

SS CREDIT HEAT ISLAND EFFECT: COVERS	Use roofing materials that have a Solar Reflection Index (SRI) greater than or equal to the value shown in the table below for a minimum of 75% of the roof surface.								
	<table border="1"> <thead> <tr> <th>Cover type</th> <th>Slope</th> <th>SRI</th> </tr> </thead> <tbody> <tr> <td>Low slope covers</td> <td>≤15%</td> <td>82</td> </tr> <tr> <td>High slope coverings</td> <td>>15%</td> <td>39</td> </tr> </tbody> </table> <p>The membranes painted with General Reflect Paint Plus have SRI > 82.</p>	Cover type	Slope	SRI	Low slope covers	≤15%	82	High slope coverings	>15%
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