

ECOREFLEX

Ultra reflective protective coating, self cleaning and photo catalytic.

Self cleaning and photo catalytic liquid coating formulated with water based synthetic resin and special additives. The product provides photo catalytic reaction that achieves degradation of airborne pollutants. *Ecoreflex* guarantees UV rays reflection, lowering the temperature of the support over which it is applied, favoring a high energy saving for air conditioning. Ready to use and suitable to be applied to horizontal, vertical and sloped surface, it has a good adhesion onto bituminous or slated membranes.

ADVANTAGES

- SELF-CLEANING.
- De-polluting functionality.
- It contributes to reduce the energetic need for air conditioning during summer, thus favoring energy saving and lowering cities pollution level.
- It reduces Heat Island Effect.
- It can be applied to completion of waterproofing systems based on synthetic resins.
- Capability to reflect sun rays.
- Elasticity both at low and high temperatures.
- Excellent weathering resistance.
- Excellent re-waterproofing features
- Easy and quick application.
- Solvent free.

APPLICATION FIELD

The product is studied as protective coat for flat roof or pitched, and also for horizontal, vertical and slope surface in places with high concentration of pollution. It presents good capacity of adhesion on different types of support and can be used in countless situations: bituminous or slated membranes in good conditions; concrete surfaces; metal surfaces in combination with *Grip Primer*; waterproofing system based on synthetic resins; polyurethane panels. Product for outdoor.

YIELD

Total yield 1,0 kg/m² in 2 coats.

COLOUR

White

PACKAGING

20 kg or 5 kg plastic bucket.

Pallet:

- 5 kg plastic bucket – 20 boxes (4 pieces each) – 400 kg;
- 20 kg plastic bucket – 48 buckets (960 kg).

STORAGE

Store the product in its original containers perfectly closed, in well ventilated areas, away from sunlight, water and ice, at temperatures between +5°C and +35°C.

Storage time: 24 months.

PREPARATION OF SUPPORT

The support must be completely hardened, dry and resistant enough and The surface must be thoroughly clean, well consolidated, without debris or detaching parts with the adequate sloping to let the water flow. Remove dust, greases and oils washing the surface with water and let dry. In case of very dirty or crumbly surface, it is advisable to clean it mechanically.

Any cracks or deteriorated areas of the support must be restored before to apply the product.

Before to apply the product, it also advisable to cover thresholds, fixtures and every element that should not be coated.

Ecoreflex grabs on the various support without primer, it is advisable to perform a preliminary test to verify the membership and the possible need to use a primer.



For application videos, product page, safety data sheet and other information.

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Technical Data

Features		Unit
Yield	1,0 kg/m ² in 2 coats	kg/m ²
Aspect	liquid	-
Colour	white	-
Waiting time between 1st and 2nd coat (T=20°C; R.H. 40%)	5	hours
Application temperature	+5 /+35	°C
Max humidity	70%	-
Drying time (T=20°C; R.H. 40%)	5 - 7	hours
Storage	24 months in original containers and in dry place	months
Packaging	5 or 20 kg plastic bucket	kg

Final performances		Units	Regulations	Result
Reflection	82%	-	ASTM E903	-
Thermal emission (E)	90%	-	ASTM C1371	-
Solar Reflex Index (SRI)	103%	-	ASTM E1980	-
Weathering test	1680 (>10 years)	hours	UNI EN ISO 11507	-
Resistance to 50 freeze-thaw cycles (-15°C/+15°C)	-	-	UNI EN 202	unchanged
Bend Test	12	mm	ISO 1519	good
Break elongation	327%	-	ISO EN 527-3	-
Break elongation after 1680 hours of weathering test	166%	-	-	-
Traction resistance after 1680 hours of weathering test	1,12	N/mm ²	-	-
Ponding water resistance (9 months)	-	-	-	very good
Viscosity (Brookfield viscometer DV-E s04, 6 rpm, t=20°C, U.R. 75%)	24000	mPa·s	-	-

* 1680 of weathering test are equal to about 10 years. This equivalence is merely indicative and it may change depending on the climate and the place where the product is applied. The above data, even if carried out according to regulated tests are indicative and they may be change when specific site conditions vary.

Coatings - acrylic

Whereas all indications and recommendations supplied herein are stated to the best of our experience and knowledge, they should nevertheless be considered as indicative only and should be confirmed by exhaustive practical applications. Diasen does not know the peculiarities of the application and the crucial features of the substrate where the product will be applied. Therefore, before the application of the product, the applicator must perform a preliminary test to verify the perfect suitability for the intended use and, anyway, the applicator is liable for any use of the product. In case of doubts, please contact our technical office before starting the work, provided that such support is simply a help for the applicator, which shall in any case ensure the possession of appropriate skills and experience for the installation of the product and to identify the most appropriate solutions. Please refer to the updated version of the data sheet, available on www.diasen.com website that supersedes all others.



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Diathonite plaster or new plaster

Make sure that the plaster is well propped so that the surface remains less rough as possible, if this is not possible, previously apply a coat of smoothing *Argacem HP* or *Argatherm* (see technical data sheets). On smoothing and dusty plaster apply the specific fixative *D20* (see technical data sheet).

Old plaster

Make sure that the plaster is well consistent and well adhering to the support, if not, it provides for partial or total removal and the reconstruction of the same. In the case of painted plasters, given the wide variety of paints available on the market, it is recommended that an adhesion test to verify the suitability for application or the need to use the fixative *D20* (see technical data sheet).

Concrete

Restore damaged and crumbly concrete with *Rebuild⁴⁰ R4* (see technical data sheet).

For a better adhesion to smooth concrete, use *Grip Primer* (see technical data sheet). If the substrate is not wet.

If the support is damp or subject to rising damp it is strictly necessary to use *WATstop* (see technical data sheet).

Metal

Completely remove rust. If the metal surface is painted, verify the adhesion of the product. If the product doesn't adhere, use *Grip Primer* (see technical data sheet).

Smooth surfaces

On very smooth and non – absorbent surfaces, use the specific primer *Grip Primer* (see technical data sheet).

Bitumen or slated membrane

Ensure that the membranes has been applied for at least 6 months to avoid crawling due to the release of oils and prime with *SBS-bond* (see technical data sheet).

Over oxidize bitumen membranes or slated membranes, apply *Ecoreflex* directly.

In case of damaged membrane, restore it before applying the product.

Consider anyway the installation of special ventilation chimneys on the membrane appropriately positioned according to the humidity of the substrate.

This measure is necessary in case of highly absorbent surfaces that hold moisture, such as lightened screeds with polystyrene or foamed clay.

For all those substrates not mentioned in this technical data sheet, please contact the Diasen technical department.

MIXING

The product is one component, ready to use. If apply by airless, dilute the product with at maximum 10% of clean water. Before application, mix the product with drill mixer at low speed in order to prevent the incorporation of the air until obtaining a homogeneous mixture, without lumps. Do not add other components. Specifically, do not add colored pigments into the compound as they could compromise the physical-chemical and mechanical properties of the product.

APPLICATION

1. Apply *Ecoreflex* in two coats.
2. Apply the first coat by roll or airless, ensure to cover the entire surface. In case of rain on a non perfect dry product, carefully check the suitability of the next covering.
3. When the first coat is dry (after about 5 hours at 20°C and 40% of relativity humidity) apply a second one with the same system, taking care to cross the two coats to uniform the surface covered.

Ecoreflex can be applied with airless machine Graco Tex Spray Mark V. Dilute the product with 10% of clean water, set the pressure of the machine at 150 bar and use nozzles 427 or 527.

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DRYING TIME

At 20°C and 40% of relative humidity, the drying time is approximately 5 hours.

- Drying time is influenced by relative humidity level and by temperature and may change significantly.
- Protect *Ecoreflex* from the water and freezing for at least 3 days after application at 20°C and 40% relative humidity.
- If applied on metal, *Ecoreflex* dries more slowly.

If applied with an higher yield respect the indicate yield, drying time could significantly increase.

SUGGESTIONS

- Do not apply at temperatures lower than +10°C or higher than +35°C.
- During summer season apply the product in the cooler hours of the day.
- Do not apply with imminent threat of rainwater or ice, and in case of strong fog or relative humidity level higher than 70%.
- Apply the product in sunny areas, because only sun exposure can activate the self cleaning reaction and the degradation of airborne pollutants.
- It does not create a walkable surface, it can be walk over only for periodic maintenance.
- Store the unused product in its original packaging.

CLEANING

The equipment used can be cleaned with water immediately after use.

After the complete drying of the product, for cleaning is recommended to use neutral detergent products, not too aggressive. Choose the most suitable method of cleaning (sponge, brush or hydro-cleaning) depending on the type of dirt present.

SAFETY

During handling use personal protective equipment and follow the indications on the safety data sheet of the product.

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