

DECORATIVES

DECORK ALFAREFLEX

White reflective cork-based finish (particle size 0 -1 mm)

Decorative white coating based on cork and aqueous resins (particle size 0-1 mm) for outdoor walls, able to reflect the incident solar radiation. The product technical features ensure a high level of thermal insulation, energy saving and thermal comfort of buildings, which is particularly relevant in the summer season. Moreover, it is an elastic finish, hydro-repellent and resistant to weather agents as well as to the erosive action of salt in the seaside areas.

BENEFITS

- Excellent high solar rays reflectance.
- It helps the energy savings and thermal comfort.
- Contributes to the hygrometric regulation of the environment.
- High elasticity and resistance to cracks.
- Easy and quick application.
- LEED accredited.

YIELD

0.9–1.2 kg/m² in 2 coats to reach a 2 mm (0.08 in) of thickness.

COLOUR

White.

PACKAGING

18 kg (39.6 lb) plastic bucket.
Pallet: 32 bucket (576 kg – 1269.8 lb).

APPLICATION FIELDS

The product is designed for coating and decorating external facades, when combined with *Diasen's* thermal insulation systems.

Decork Alfareflex shows excellent adhesion abilities on any kind of support and therefore, when combined with the correct primer, it can be used on different substrates: metal, plaster, cementitious supports and tiles.

STORAGE

Store the product in its original containers perfectly

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closed, in well ventilated areas, away from sunlight, water and frost, at temperatures between +5°C and +35°C (41°F and 95°F).

Storage time: 12 months.

PREPARATION OF SUPPORT

The support must be completely hardened and resistant enough. The surface must be perfectly levelled, thoroughly clean, dry, well consolidated, without oils, greases debris or detaching parts or other materials that may compromise the product adhesion. If the surface is crumbly in its entirety, totally scrape it until obtaining a good support and restore lesions or damaged parts with suitable mortar. In case of hydro-cleaning, wait for the complete drying of the support. Potential humidity in the support or the vapour due to radiation may compromise the adhesion of the applied product. *Decork Alfareflex* adheres to different kind of support without the primer; nonetheless, it is anyway recommended to perform a test to verify the adhesion or the need to use a primer.

Plaster from the *Diathonite* line or new plasters

Make sure that the plaster is well levelled so it is as smooth as possible.



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Otherwise, apply a layer of a suitable *Diasen's* smoother, such as *Argatherm* or *Argacem HP* (see technical data sheet). Apply the fixative *D20* (see technical sheet) directly on plasters and on shavers. In case of cracked bottom and with micro cracks apply the white background *Color Primer* (see data sheet).

Old plaster

Make sure that the plaster is compact and well bonded to the support, otherwise remove it partially or totally and re-make it.

In case of painted plasters, given the wide variety of paints on the market, it is recommended to perform an adhesion test to verify the suitability for the application or the need to use *D20* (see data sheet) and/or *Color Primer* (see data sheet) as primers.

Decork Alfareflex can directly be applied on rough plasters, yet when dusty supports are to be dealt with, use *Color Primer* (see technical data sheet).

Plasterboard

On plasterboard surfaces, make sure that the joints are sealed and smoothed; then, apply *Grip Primer* (see technical data sheet).

Concrete

In case of new realised cement substrate, this must be sufficiently cured. In presence of lesions, holes or irregular areas, restore them with suitable cement mortar, such as *Rebuild⁴⁰ R4* (see data sheet).

For a better adhesion on smooth and not moist concrete, it is recommended to *Grip Primer* (see technical data sheet).

On moist supports, not onto the ground, in order to avoid blistering or detachment phenomena, use *Vapostop* (see technical data sheet) as a primer.

If the support is affected by rising damp, it is necessary the use of *WATstop* (see technical data sheet). *WATstop* can also be used to fill small cracks and to level the support. On rough concrete use the primer *Vapostop* (see technical data sheet).

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Wood

Thoroughly clean the surface by removing dust, debris and detaching parts. The wood must be completely dry, well resistant and stable.

Treat the wooden surfaces with the primer *Grip Primer* (see technical data sheet) before the application of *Decork Alfareflex*. Do not apply the product on wooden supports, match-boarding or on supports with many joints.

Metal

Thoroughly clean the surface by removing all dirt and potential varnishes not well attached. Before the application of *Decork Alfareflex*, apply *Grip Primer* (see technical data sheet) on the surface. In presence of rust, before the application of *Color Primer*, treat the surface with an rust protection (see technical data sheet). If the metal surface is painted, it is recommended to perform a test to verify the correct adhesion of the system.

Smooth surfaces

On particularly smooth and not absorbent surfaces use the specific primer *Color Primer* (see technical data sheet).

For supports not mentioned in technical data sheet, please contact *Diasen* technical department.

Treatment of joints

Potential joints on the supports (joints between panels made of concrete or of other materials, expansion, control or insulation joints) must be treated, before the application of *Decork Alfareflex*, with the polyurethane sealant *Diaseal Strong* (see technical data sheet).

Treat points in contact with doorsteps or windows with the sealant *Diaseal Strong*.

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MIXING

- Always mix the product before the application with helical drill until obtaining a homogeneous mixture.
- Completely pour the content of the bag in the bucket.
- Mix the compound for at least 2 or 3 minutes, until obtaining a mixture.
- The product is ready to use and generally it does not need to be diluted. In extremely hot climatic conditions, it is possible to add:
 - For **hand application**, maximum 5% of water (0.9 L - 0.2 gal of water each 18 kg – 39.6 lb packaging).
 - For hopper **gun application**, maximum 10% of water (1.8 L – 0.47 gal per 18 kg – 39.6 lb packaging).
- It is recommended to dilute the product always in the same way to avoid colour changes.
- Mix again the compound.
- Never add other substances to the product.

APPLICATION

Application by hand

1. Wait for the complete drying of the primer possibly used.
2. Apply a first abundant coat of *Decork Alfareflex* by steel trowel with rounded edges. The first layer can be used as a smoothing layer to uniform the surface. In case of rain over not completely dry product, carefully verify the suitability of the next covering.
3. When the first layer is completely dry (about 10 hours at 23°C/73.4°F and 50% relative humidity), apply a second thin of product to finish. Do not use too much product for the second coat. For a better result and a more homogeneous coating, it is recommended to cross the coats.
4. Smooth as soon after the application with a 45° rounded edge plastic trowel.
5. Application time: approximately 80/110 m² (860.8/1183.6 ft²) per day.

Application with hopper gun DS-Spray Gun

1. Wait for the complete drying of the primer

possibly used.

2. The hopper gun must have:
 - minimum pressure of the compressor 5.0 bar;
 - nozzle diameter 8.0 mm (0.31 in).
3. Apply a first coat of *Decork Alfareflex* with fluid circular movements and cover the entire surface. In case of rain over a not perfectly dry product, carefully verify the suitability of the next covering.
4. When the first coat is completely dry (about 10 hours at 23°C/73.4°F and 50% relative humidity), apply a second coat of *Decork Alfareflex* by using the same mode as previously, until complete covering of the substrate.
5. Do not smooth.
6. Application time: approximately 200/250 m² (2152/2690 ft²) per day.

Decork Alfareflex can also be applied by **spraying machine** DS-5500 Texture Sprayer, nozzle diameter 4.00 mm (0.16 in), pressure level 4 (4.0 atm); in this case, the application time ranges from 700 to 800 m² (7532 and 8608 ft²) per day.

DRYING TIME

At a temperature of 23°C/73.4°F and 50% relative humidity, the product dries in about 10 hours.

- Drying time is influenced by environmental relative humidity and by temperature and may significantly change.
- Protect *Decork Alfareflex* during the drying from rain, frost, direct sunlight and wind for at least 2 hours at a temperature of 23°C/73.4°F.
- If applied in higher amount than the expected ones, drying time may significantly increase.

SUGGESTIONS

- Do not apply at environmental temperature or at support temperature lower than +5°C (41°F) and higher than +35°C (95°F).
- During summer season apply the product in the cooler hours of the day, away from sunlight.
- Do not apply with imminent threat of rain or frost, in conditions of strong fog or with relative

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- humidity level higher than 70%.
- Apply the product on completely dry surfaces.
- Protect the product from pouring rain until complete drying.
- Before the product application, it is recommended to cover each element that will not be coated.
- Store the unused product in the original packaging.

CLEANING

Wash tools with water right after the use. When the product is completely dry, for the cleaning, it is

recommended to use neutral and not aggressive detergents.

Choose the most suitable cleaning method (sponge, brush or high-pressure water jet machine) according to the type of dirt.

SAFETY

While handling, always use personal protective equipment and respect the instructions described in product safety data sheet.

* The above data, even if carried out according to regulated tests, are indicative and they may change when specific building site conditions vary.

Technical Data*		
Features		Unit
Yield	0.9 – 1.2 in two coats for about 2 mm of thickness	kg/m ²
Aspect	paste	-
Colour	White	-
Dilution	By trowel If necessary, max 5% 0.9 l per 18 kg bag (0.24 gal per 39.6 lb bag)	-
	By spray If necessary, max 10% 1.8 l per 18 kg bag (0.48 gal per 39.6 lb bag)	
Waiting time between 1 st and 2 nd coat (T=23°C/73.4°F; R.H. 50%)	about 8 - 10	hours
Grain size	0 – 1	mm
	0 – 0.04	in
Application temperature	+5 / +35 +41 / +95	°C °F
Drying time (T=23°C/73.4°F; R.H. 50%)	10	hours
Storage	12	months
Packaging	18 kg plastic bucket	kg
	39.6 lb plastic bucket	lb

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** 1680 hours of weathering test are equal to about 10 years. This equivalence is merely indicative and it may vary depending on weather conditions where the product will be used.

Final performances	Result	Unit	Regulation
Thermal conductivity (λ)	0.086	W/mK	EN 12667
SRI	100	%	ASTM E 1980-11
Emissivity	0.889	-	EN 15976:2011
Solar Reflection	0.806	%	ASTM E 1549-09
Elasticity	60%	-	ISO 527-1
Crack Bridging	Class A5	-	EN 1062-1
Weathering Test**	1680 hours (10 year**)	hours / years	EN ISO 11507
Vapour transmission	Class V3	-	EN 1062-1
CO ₂ permeability	Class C1	-	EN 1062-1
Water permeability	Class W2	-	EN 1062-1
Gloss	Class G3	-	EN 1062-1
Grain size	Class S1	-	EN 1062-1
Thickness	Class E5	-	EN 1062-1
Adhesion on Concrete after the freeze/defreeze cycle	0.67	N/mm ²	EN 13787-1:2003, EN 13787-2:2003, EN 1542: 2000
Adhesion on Concrete	1.17	N/mm ²	EN 1542: 2000, EN 1504-2: 2005

***credits only valid for LEED for Schools, LEED for Core & Shell standards, v. 2009.

LEED® Credits

***Standard LEED for New Construction & Major Renovation, LEED for Schools, LEED for Core & Shell, v. 2009

Thematic area	Credit	Points
Energy & Atmosphere	EAp2 - Minimum Energy Performance	Mandatory
	EAc1 – Optimize Energy Performance	From 1 to 19
Materials & Resources	MRc2- Construction Waste Management	From 1 to 2
	MRc4 – Recycled Content	From 1 to 2
	MRc5 – Regional Materials	From 1 to 2
	MRc6 - Rapidly Renewable Materials	1
Indoor Environmental Quality	IEQc3.2 - Construction Indoor Air Quality Management Plan—Before Occupancy	1
	IEQc4.2 - Low Emitting Materials - Paints and Coatings	1

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Indoor Air Quality (AIQ) Certification

Evaluation of the results

Regulation or protocol	Version of regulation or protocol	Conclusion
French VOC Regulation	Decree of March 2011 (DEVL1101903D) and Arrêté of April 2011 (DEVL1104875A) modified in February 2012 DEVL1133129A)	
French CMR components	Regulation of April and May 2009 (DEVP0908633A and DEVP0910046A)	Pass
Italian CAM Edilizia	Decree 11 October 2017 (GU n.259 del 6-11-2017)	Pass
AgBB/ABG	Anforderungen an bauliche Anlagen bezüglich des Gesundheitsschutzes, ABG May 2019, AgBB August 2018	Pass
Belgian Regulation	Royal decree of May 2014 (C-2014/24239)	Pass
Indoor Air Comfort®	Indoor Air Comfort 7.0 of May 2020	Pass
Indoor Air Comfort GOLD®	Indoor Air Comfort GOLD 7.0 of May 2020	Pass
BREEAM International	BREEAM International New Construction v2.0 (2016)	Exemplary Level
BREEAM® NOR	BREEAM-NOR New Construction v1.2 (2019)	Pass
LEED®	"Low-Emitting Material" according to the requirements of LEED v4.1	Pass
CDPH	Classroom scenario	CDPH/EHLB/Standard Method V1.2. (January 2017)
	Office scenario	CDPH/EHLB/Standard Method V1.2. (January 2017)



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DIASEN Srl - Z.I. Berbentina, 5 - 60041 Sassoferrato (AN)
Tel. +39 0732 9718 - Fax +39 0732 971899
diasen@diasen.com - www.diasen.com