

DANOPRIMER® EP



Epoxy, two-components, solvent-free primer, fit for porous supports with residual humidity, fast curing at low temperatures and compatible with DANOCOAT, DANOPUR and DANOFLOOR systems.



VERY GOOD
BONDING



BICOMPONENT

1. PRODUCT DESCRIPTION

DANOPRIMER EP is an epoxy, two-component, solvent-free primer with high adherence, including in supports with residual humidity and fast curing at low temperatures, with manual application.

1.1 Uses

Formulated mainly to be applied in porous supports. Ideal for consolidation and seal of mineral supports. It is a primer that grants lasting protection against corrosion in metal surfaces, which had been mechanically treated, e.g. sand blast.

Also fit for a preparation of epoxy mortars to repair and level uneven very porous supports or to generate a vapour barrier, mixed with 0.063mm-0.3mm silicon aggregates with an approximate relation of 1:1-1.5, depending of the ambient temperature and with application using a spatula.

1.2 Application fields

- Primer for DANOFLOOR and DANOPUR systems (epoxy and polyurethane)
- Primer for DANOCOAT systems
- Binder for levelling mortars and base coats
- Union bridges

1.3. Compatible supports

Concrete, fibre cement, cement mortars, epoxy mortars and steel supports.

1.4. Advantages

- Good bonding, including in humid supports
- Fast curing at low temperatures, until 5°C
- Good mechanical resistance and improvement of the mechanical characteristics of the support
- Solvent-free
- Vapour and moisture barrier
- Low viscosity
- Hardener for low ambient/support temperatures (5 to 23°C) and high temperature (15 to 35°C) for a better workability in different seasons
- Components supplied in a metal container with shackle lock

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2. TECHNICAL DATA

PRODUCT DATA			
	COMPONENT A (epoxy resin)	COMPONENT B LOW TEMP. (Polyamidoamine)	COMPONENT B HIGH TEMP. (Polyamidoamine)
COLOUR	Transparent	Brown	Brown
PRESENTATION	6.3 kg can	3.7 kg can	3.7 kg can
DENSITY (g/cm ³) at 23°C	1.10 ± 0.02	1.03 ± 0.02	1.01 ± 0.02
VISCOSITY (MpA.S.) AT 23°C	550 ± 100	1000 ± 400	1500 ± 500
RELATION A/B (in weight)	100/59		
RELATION A/B (in volume)	100/64		
APPLICATION DATA			
SUPPORT/AMBIENT TEMPERATURE (°C)	-	5-23	15-35
POT LIFE (mix life span) and viscosity	5°C	-	120min / >400 mPas
	10°C	-	60min / ± 2000 mPas
	23°C	-	40min / ± 700 mPas
	35°C	-	30min / ± 400 mPas
SUPPORT/AMBIENT TEMPERATURE (°C)	+5°/+35°C (3°C above dew point)		
RELATIVE HUMIDITY	< 80%		
PROPERTIES OF THE APPLIED PRODUCT			
SHORE D, at 23°C (ISO 868)	24h	-	52
	48h	-	72
	7 days	-	81
CONCRETE BONDING after 7 days of curing (at 23°C, 50% RH)	Humid support: > 1.5 N/mm ² Dry support: > 2.0 N/mm ²		

3. PREPARATION OF THE SUPPORT

3.1 Characteristics of the support

The support must be cohesive, without loose particles, free from cracks or crevices, with regular surface texture and a tensile strength higher than 1.5 N/mm². Any previous coatings must be eliminated from the support. The support must be clean, dry, without oils, greases, surface slurries or other elements that may harm the adherence. The support must be insulated against rising moisture.

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3.2 Primer yield

SYSTEM		PRODUCT	YIELD* (g/m ²)
PRIMER	CONCRETE	(1-2) Danoprimer EP	300-500
	STEEL	(1) Danoprimer EP	100-200
	FIBRE CEMENT	(1) Danoprimer EP	200-300
	MORTARS	(1-2) Danoprimer EP	400-600
REGULARIZATION KORTARS		1 part Danoprimer EP + 1 part of 0.063-0.3mm quartz sand	1.4 kg / m ² / mm
INTERMEDIATE COAT		1 part Danoprimer EP + 1.5 part of 0.063-0.3mm quartz sand	1.55 kg / m ² / mm
UNION BRIDGE		(1-2) Danoprimer EP	300-500

* The indicated yields are approximate and will depend on each case of conditions of the support

3.3 Preparation of the support

* Concrete

The support must be at least 28 days of curing and a compression resistance equal or higher than 25 MPa. The residual moisture content must be lower than 4% (for a higher residual humidity, contact the technical department). The temperature of the substrate must be, at least, 3°C above dew point temperature. All loose particles, or contaminants, that affect the adherence, must be eliminated by using mechanical means: milling, sanding or gritting; aiming to regularize the surface and open pores, in order to enable a good adherence by the primer.

Before applying the primer, the support's defects must be repaired. The existing holes or areas with lack of material must be filled with DANOPRIMER EP epoxy resin, mixed with sand in the approximate relation of 1:4, depending on ambient temperature. The cracks must be opened with a diamond disc until reaching a depth of 1 to 2 cm, vacuum the generated dust and fill with ELASTYDAN PU40. Afterwards spray with 0.3mm-0.6mm silicon aggregates on the coat.

* Metal/Steel

The metal surfaces must be prepared with SA2.5 sand blast. To remove oils and greases it must be cleaned with solvents

3.4 Primer curing times

In the following table it are indicated the minimum and maximum waiting times for a proper curing of the primers, before projecting the membrane. The indicated times are merely indicative and may vary depending on environmental conditions, mainly regarding the relative humidity.

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PRODUCT	MINIMUM TIME (HOURS)			MAXIMUM TIME (HOURS)		
	Temperature of the support			Temperature of the support		
	10° C	20° C	30° C	10° C	20° C	30° C
DANOPRIMER EP LOW TEMP.	24	6	4	72	48	24
DANOPRIMER EP HIGH TEMP.	-	10	4	-	48	24

4. APPLICATION MODE

4.1 Proof of the environmental conditions

Before starting the projection, check if the environmental and support's conditions are adequate:

- Temperature between +5°C and +35°C, and relative humidity <80%
- Humidity of the support <4% (for higher residual humidity, contact the technical department).
- Temperature of the support, at least 3°C above dew point temperature

4.2 Preparation of the product

Pour component B in component A's container and shake the two components for 3 minutes with a low revolution mechanical shaker (300 to 400 rpm) until the mix is homogenous. After mixing, leave to rest for 1 to 2 minutes.

In case of adding the silicon sand to the mass, first mix component A and B, only then add the silicon sand to the mix.

Never add any type of solvents to the product.

4.3 Application method

* Concrete seal

Apply with brush, roll or rubber roll evenly, in order for the coat to be without any porous. In medium to high porosity supports, apply a second coat.

* Regularization mortars

In case of very porous, irregular supports or to generate a vapour barrier, it must be applied with trowel until reaching the required thickness, a second coat of primer, type DANOPRIMER EP mixed with 0.063mm-0.3mm silicon aggregate in an approximate relation of 1:1, depending on the ambient temperature. Apply the spiked roll to help levelling and remove the occluded air.

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* Intermediate coat

Mix DANOPRIMER EP with 0.63mm-0.3mm silicon aggregate in an approximate relation of 1:1.5 and apply with notched trowel. Apply the spiked roll to help level and remove the occluded air. If necessary, with fresh DANOPRIMER EP, spray silicon aggregates until saturation. Once dry, remove the non-bonded aggregate.

* Union bridge

Apply DANOPRIMER EP with brush or doll distributing a thin a uniform layer over the whole surface. Apply the concrete, mortar or epoxy mortar always on fresh and adhering DANOPRIMER EP.

* Metal/Steel

Apply DANOPRIMER EP evenly with a roll or airless gun, in order that the coat does not have any porous, before 8 hours after the treatment with sand blast, to avoid surface oxidation.

5. NOTES

- In outdoor, to avoid surface defects (blisters) due to the rise of water vapour in the concrete/mortar, it must be applied when the temperature is constant or when it is decreasing.
- Protect from humidity and water during the first 24 hours (20°C)
- Do not dilute, nor add any component that may alter the DANOPRIMER EP product's characteristics
- It is very important to treat the cracks. A bad preparation of cracks may reduce the coat's life span.

6. STORAGE

Keep the containers hermetically sealed and protected from extreme temperatures (store between 10°C and 30°C) for a period no longer than 24 months. The last four digits of the lot number indicated in the tag correspond to the product's manufacturing date (month/year).

7. SAFETY AND HYGIENE INSTRUCTIONS

See the safety files of the two components.

8. LEGAL NOTES

All the information provided in this document is merely indicative, corresponding to our experience and current state of technical knowledge. It does not assume any contract agreement in respect of third parties. It is indispensable to conduct previous tests to verify the products adequacy for the intended use. Any doubt must be presented to our technical department.

You must always check if you are consulting the last edit of the technical file.