

Technical Data Sheet Version: C' - 02.08.2023

D-FLEX® CLEAR

TRANSPARENT LIQUID-APPLIED WATERPROOFING MEMBRANE

EASY TO WORK WITH AND APPLY

DURABLE AGAINST WEATHER CONDITIONS AND UV







CONSUMPTION

~500 – 700 kg/m², 2-3 layers.





STORAGE

Store in well-sealed containers without any problems for up to 9 months in a cool and dry place. Must be protected from solar radiation and frost.

CONDITION OF APPLICATION

It can be applied on extreme weather conditions and intense temperature changes.

TYPES OF SUBSTRATES

Tiles, concrete, wooden surfaces, oxidized metals, glass, polycarbonate sheets, etc.

RECOMMENDED

For indoor and outdoor use.

DESCRIPTION

D-FLEX® CLEAR is a transparent, one-component, aliphatic polyurethane-based, liquid-applied, waterproofing membrane. The membrane it forms has a high tightness and elasticity, while it is characterized by excellent mechanical and chemical behaviour. In addition, thanks to the high-quality elastomeric and hydrophobic resins, it presents chemical inertness against ultraviolet (UV) radiation, thus preventing the colour change (yellowing) of the final surface, as well as maintaining its elasticity over time. Since the removal of the existing substrate (tiles, wood, glass brick, polycarbonate, etc.) is not required to achieve high-quality waterproofing, it is characterized as an easy to apply and economical solution for the user.

ADVANTAGES / CHARACTERISTICS

- Easy and economical application.
- Stable against ultraviolet (UV) radiation (non-yellowing / no chalking).
- Continuous, waterproof, elastic membrane, without seams or joints.
- Application in stagnant water points.
- Maintains its mechanical strengths in a temperature range of -30 to 90°C.
- Breathable substrate / vapour-permeable membrane

- Excellent adhesion to the entire coated surface.
- Stress-resistant surface.
- In case of failure of the final surface, it is repaired in a short time locally with the same material.
- Excellent resistance against weather conditions (rain, frost, high temperatures).
- Chemical resistance to detergents, oils, and seawater.
- Excellent waterproofing on ceramic, stone and glass surfaces.
- It waterproofs damaged glass surfaces.
- Holds the fragments in case of breakage.

APPLICATION FIELDS

It is recommended for waterproofing and protection: outdoor surfaces (terraces/balconies/walls) that are covered with tiles, natural stone, wood, bamboo, decorative cement mortars, pressed cement mortars, glass bricks etc. Skylight domes, atriums and greenhouses are made of glass, polycarbonate sheets, etc., as well as a binder for mosaic tiles/flakes adhesive on decorative indoor and outdoor floors.

APPLICATION TOOLS

The application is done with a roller.



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CLEANING

Clean with a special solvent while the product is fresh. Do not empty washing liquids into the aquifer.

APPLICATION

SUBSTRATE PREPARATION

The surface must be flat, dry and clean, free from dust, oils, salts, rusts, old paints and other foreign substances, while corroded parts must have removed. In the case of fresh concrete, this must be 28 days old. Areas with trapped humidity should be well dry, and if this is not possible, the humidity percentage should not exceed 4 to 5%. The substrates must not be washed with water. Before the coating on ceramic tiles, the joints should be checked for rising nitric salts, while in the case of natural stone surfaces, an adhesion test should be performed. Finally, it is significant to seal/repair cracks and expansion joints before using the product to achieve long-term sealing.

- On non-porous surfaces (tiles, glass, etc.), prime the surfaces with the D-FLEX® Promoter primer by mopping them. Soaking a clean and dry cloth and wiping the entire surface off. In this way, the surface is chemically activated, achieving increased adhesion, and at the same time, the surface grease is removed. The D-FLEX® Promoter must be spread over the entire surface. The D-FLEX® Promoter should not be applied in transparent plastic materials, such as polycarbonate sheets. After 20-30 minutes, apply the D-FLEX® CLEAR.
- On porous surfaces (microcement, concrete, natural stone, etc.), are primed with DESMOFLEX EPOXY PRIMER.
 After 3-4 hours, the first coat of D-FLEX® CLEAR can be applied.

Before application, lightly stir (to avoid air entrapment) **D-FLEX® CLEAR** to homogenize the resin mixture again. The ideal temperature for use is 5-35°C. At low temperatures, the hardening slows down, while at high temperatures, it accelerates.

TRANSPARENT WATERPROOFING MEMBRANE

The product is applied with a roller in two or three layers. Each subsequent layer is applied after 12 hours, depending on the weather conditions, and not later than 24 hours from the previous one.

D-FLEX® CLEAR is applied in thickness up to 1mm per layer.

BONDING RESIN

For application as a bonding resin on FLOOR CARPET decorative floors, it must be sealed with D-FLEX® POLYURETHANE, and after 24 h, the FLOOR CARPET mixture is applied.

In a clean container containing 750 g, **D-FLEX® CLEAR**, add 6-8 kg of quartz sand, depending on the particle size. Then stir very well and slowly, with the help of an electric stirrer (300 rpm), until a homogeneous mixture is created (≈ 5 minutes). The proportion of aggregates depends on the granulometry of the quartz sand. It is significant to stir the walls and bottom of the container to achieve a homogeneous final material. In any case, ensure that there is complete wetting of the aggregates.

Wet the spatula with a brush to create a slippery surface. Then spread the mixture on the surface with a metal spatula.

Once the decorative floor has hardened, an additional layer of **D-FLEX® CLEAR** can be applied as an option.

PRECAUTIONS

For information regarding safe use, storage and disposal of the product, read the information on the label and in the most recent product Material Safety Data Sheet. The product Material Safety Data Sheet is available upon request to professionals.

The skin and eyes must be protected. Protective gloves and goggles must be worn when applying the paint. In case of contact with the eyes, rinse immediately with plenty of water and consult a physician. The product should be kept out of the reach of children.

Leftovers should not be disposed of with household waste. Advice should be sought from the local authority regarding the disposal and collection of waste.

National poison information centre tel.: 210 77.93.777.

WARNINGS

On surfaces with existing water repellent impregnations, there may be a problem with adhesion.

To reduce the final surface's slipperiness, the application of suitable quartz sand is advised in the final fresh layer.

For the application of the product in transparent plastics, consult the technical support department.

Application and curing temperature should be between 8°C to 35°C.

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The product is polymerized in direct contact with the atmosphere. Therefore, opened containers are not stored, and leftover material must be disposed of following the applicable environmental laws of the area.

The application always should be done with the **use of** activated carbon masks due to volatile organic compounds.

It is intended for professional use only.

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TECHNICAL CHARACTERISTICS	UNITS	STANDARD	VALUES / CHARACTERISTICS
Chemical composition			Polyurethane prepolymer
Colour			Transparent, gloss
Density	(kg/L)		1.00 ± 0.05
Elongation at break	(%)	EN ISO 527	>350
Tensile strength at break	(N/mm²)	EN ISO 527	25
Capillary absorption	(kg/m ² ·h ^{0,5})	EN 1062-3	0.01
Gloss retention after 2000h of accelerated aging:		DIN 67530	Good
Surface chalking after 2000h of accelerated aging:			No chalking occurred.
Hardness (Shore D):		ASTM D 2240	45±5
Application temperature:			5°C-35°C
Walkability:	(hours)	Conditions (20°C, 50% RH)	8-12
Curing time:	(hours)	,	48
Final Curing time:	(days)		7

Note: The measurements were taken in laboratory environment under a temperature of 23±2°C, Relative Humidity 50 % and without ventilation. They may vary depending on the conditions prevailing at the worksite, such as temperature, humidity, ventilation and absorbability of the substrate.

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