

Flexbit

Elastomeric bituminous liquid membrane in water emulsion

Technical specifications

Flexbit is a multi-purpose, thixotropic waterproofing membrane based on bitumen emulsion, selected elastomeric resins, and special additives. The product is odorless, non-flammable, and non-toxic. Thanks to its specific chemical formulation, **Flexbit** is particularly suitable for waterproofing terraces of any slope, foundations, retaining walls, and roofs under screeds. It can be used for repairing non-walkable slabs on flat, sloped, or curved roofs with micro-cracks or small fissures not subject to strong movement or expansion, and for protecting surfaces from aggressive chemical agents.

Flexbit waterproofs and protects against atmospheric agents and UV rays. It resists the corrosive action of many acids and water stagnation, is easy to apply cold, adheres perfectly to various materials, has excellent crack resistance at low temperatures, and does not drip at high temperatures. The product is particularly recommended in environments where solvent-based products are prohibited. It is also compatible with cementitious adhesives.

Flexbit is used as a liquid waterproofing membrane in situations where the application of bitumen-polymer membranes or shingles and flame-based techniques is difficult, whether vertically or horizontally. Typical applications include: waterproofing retaining walls, bathrooms, showers, saunas; sealing and finishing in roof waterproofing; cold gluing of bitumen-polymer membranes on concrete or wooden substrates as an alternative to flame-bonding; gluing insulation panels; quick, localized repairs; restoring the waterproofing of balconies and terraces without removing the existing flooring; coating and waterproofing concrete balconies before tiling with gres or clinker where bitumen-polymer membranes are not viable; creating a waterproof and bonding layer for subsequent tiling with appropriate cementitious adhesives (category C per EN 12004).

When diluted 50%, **Flexbit** can also be used as a dust-proof primer and still provides a waterproof surface for further applications.

It adheres excellently to bitumen-polymer membranes, concrete, various metal surfaces (pipes, gutters, tanks), fiber cement, plasterboard, wood, ceramic flooring, and glass.

Instructions for use

Flexbit is ready to use.

Stir before application.

Clean the surfaces to be treated: they must be dry, uniform, and solid.

Make sure to remove dust, any loose or crumbling parts, release agents and paints.

The surfaces must be completely dry before application. Concrete surfaces must not have been treated with curing compounds.

Do not apply in adverse weather conditions that may negatively affect the application, spreading, or drying of the product: impending rain, dew, fog, or frost may wash away or prevent proper adhesion of **Flexbit** to the treated surface. Check the efficiency of water drainage points before applying.

May be applied on damp surfaces as long as no water is stagnating.

Apply evenly, ensuring full drying of each coat.

Application

Apply by roller, brush, spray, broom, spatula or notched rakel.

Preliminary testing on the surface is recommended.

On surfaces larger than 10 m² or subjected to stress, we recommend reinforcing **Flexbit** with suitable non-woven polyester fabric reinforcement, embedded in the still fresh first coat.

Two coats are recommended. For large surfaces, dilute the product up to 10% with water to ease application.

Apply the second coat "wet-on-wet" if the first coat is reinforced; otherwise, wait until the first coat is completely dry (24–48 hours depending on conditions)

Apply at temperatures between +5°C and +35°C, avoiding extreme heat or cold during application, spreading, and film drying.

Clean tools immediately after use with water. In case of dried product residue, use hot water or common synthetic thinners for removal.

Consumption

Flexbit consumption depends on the surface and desired thickness. Typical usage ranges from 1.2 to 1.8 Kg/m². To obtain a 1 mm dry film, use about 1.7 Kg/m². Applying non-woven polyester reinforcement, the total usage is 1.8–2.2 Kg/m². For spot gluing of insulation panels, consumption is approximately 400-700 g/m².

It is always recommended to check substrate absorption and porosity by performing a preliminary test.

Warnings

Apply at ambient temperature above +5°C and when no fog, rain, or frost is expected.

Do not apply on surfaces subject to permanent water stagnation.

Avoid use on newly applied bituminous surfaces, which may release hydrocarbons, impairing adhesion.

Check the residual moisture content of the concrete substrate before use (preferably ≤5% by weight, for screeds with a density of 2000 Kg/m³), in accordance with UNI 10329.

For very damp slabs or substrates, use appropriate venting systems to prevent blistering from condensation under the membrane.

Do not exceed the recommended quantity per coat to allow proper evaporation of water from the bitumen emulsion.

Temperatures above 35°C impair workability due to overly rapid drying.
In foundation waterproofing, always protect the membrane before backfilling to avoid damage.
The product may be walked on occasionally for maintenance purposes.
For increased durability, protect **Flexbit** with suitable top coatings.
Do not use on surfaces affected by water rise or strong hydrostatic pressure.
Protect from freezing: do not store at temperatures below +5°C; if frozen, the product is no longer usable.
Do not apply on excessively hot or overly wet substrates.
Do not use on surfaces in contact with potable water.
Store in a cool, dry area in the original closed containers.
The product is stable for up to 24 months in unopened original containers.
Always conduct a preliminary test before use.
Handle in accordance with standard safety and industrial hygiene practices. Prevent release of the material or its packaging into the environment.
Refer to the Material Safety Data Sheet (MSDS) for detailed handling and safety instructions.
Additional information is provided at the end of this document.

Packaging

Buckets 1Kg
Buckets 5Kg
Buckets 20Kg

CHEMICAL AND PHYSICAL PROPERTIES

Physical state		Thixotropic paste
Colour		Black
Smell		Characteristic
Brookfield Viscosity (T=20°C, spindle 6, 10 rpm)	UNI EN ISO 3219	[70.000±14.000] cP
Density (T=20°C)	UNI EN ISO 2811-1	[1,21±0,04] Kg/L
Dry residue (T=130°C)	UNI EN ISO 3251	53-59%
pH (T=20°C)		8,0-9,0
Low temperature flexibility	UNI EN 15813	-30°C
Dimensional stability (high temperature)	UNI EN 15818	+150°C
Tack-free time		4 hours*
Drying time for recoating		24÷48 hours*
Operating temperature range		[-30<°C<+80]*

PERFORMANCE PROPERTIES - EN 1504-2 - SURFACE PROTECTION SYSTEMS FOR CONCRETE (C COATINGS – PRINCIPLES: PI-MC-IR)

CO ₂ permeability	UNI EN 1062-6	S _D >50m
Water vapor permeability	UNI EN ISO 7783	Class I (S _D <5m)
Liquid water permeability	UNI EN 1062-3	w<0,1Kg/m ² ·h ^{0,5}
Direct tensile adhesion	UNI EN 1542	≥1N/mm ²
Fire reaction	EN 13501-1	Class E

*Values recorded at T=23°C and 50% relative humidity. Results may vary depending on the thickness or amount of product applied, as well as site-specific boundary conditions such as temperature, humidity, ventilation, and substrate absorption.

PERFORMANCE PROPERTIES - EN 14891 - LIQUID APPLIED WATER IMPERMEABLE PRODUCTS FOR USE BENEATH CERAMIC TILING BONDED WITH ADHESIVES -

PERFORMANCE PROPERTIES	REQUIREMENT (EN 14891)	PRODUCT PERFORMANCE
Initial tensile adhesion	>0,5N/mm ²	>0,5N/mm ²
Tensile adhesion strength after water contact	>0,5N/mm ²	>0,5N/mm ²
Tensile adhesion strength after heat ageing	>0,5N/mm ²	>0,5N/mm ²
Tensile adhesion strength after freeze-thaw cycle	>0,5N/mm ²	>0,5N/mm ²
Tensile adhesion strength after contact with chlorinated water	>0,5N/mm ²	>0,5N/mm ²
Water impermeability	No penetration	Impermeable
Crack Bridging Ability (T=-20°C)	>0,75mm	>0,75mm
CLASSIFICATION ACCORDING TO UNI EN 14891	CLASS DM O2	Impermeable product applied in liquid dispersion with improved crack bridging ability at low temperatures (-20 °C)

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