Technical Data Sheet

weber.tec Superflex D 24

2-comp. reactive and quick-setting waterproofing coating

Highly flexible, reactive, fast-setting, radon-tight and bitumen-free 2-comp. thick-layer waterproofing coating based on innovative binder technology for safe and durable waterproofing of buildings

Product profile

— for versatile waterproofing of buildings, indoors and outdoors
— for the renovation of the old bitumen waterproofing
— especially for projects that are under time pressure

Product advantages

— fast-setting & fast resistance to pressure water
— radon gas tight
— weather-independent full drying time within 24 hours

Product description

weber.tec Superflex D 24 is a 2-component, thick-layer, hydraulically fast-setting, highly flexible, bitumen-free waterproofing compound. Fulfils all standards of the norm EN 15814 table 1 of PMBC (classes CB2-R3-W2A-C2A). With general building authority test certificates in accordance with test principles PG-MDS, PG-FPD, PG-FBB Part 1.

Fields of application

weber.tec Superflex D 24 is used for waterproofing basements in both old and new buildings, as well as foundations that are in direct contact with the ground. For subsequent waterproofing on existing anionic bitumen layers, as a bonding mortar on existing bitumen coatings. For waterproofing of facade socket areas as well as floor-flush window and door connection profiles. As horizontal damp-proof courses in walls or under ascending walls. For retrospective internal waterproofing of earth-contacting basements walls (with negative water pressure). For waterproofing of water tanks (with positive water pressure up to 10 meters water head). An intermediate waterproofing layer under screeds in rooms with a high level of humidity and balconies and terraces (not above heated rooms). Also for spot-bonding and full surface-bonding of rigid-foam polystyrene boards below ground level.

Product features

— highly flexible and crack-bridging min. 2 mm
— meets testing requirements for PMBC and FPD
— EMICODE EC 1 ^{PLUS}: very low emission of volatile substances
— high dry residue ≥ 98%
— 1.02 mm fresh coat (approx. 1.07 kg/m^2) yields in approx. 1 mm dry coat
— fast resistance to rain after approx. 1.5 hours when applied at a thickness of 4 mm
— allows bonding of insulation boards (drainage/protection) boards after only 4 hours
— fast resistance to pressure water of 1.0 bar after 24 hours
— suitable for use in accordance with ETA up to 8 m water pressure
— for all mineral substrates, does not require a render layer on masonry
— can be covered with render or paint, resistant to frost and UV radiation
— multi-use: external and internal waterproofing / waterproofing of horizontal and vertical surfaces / waterproofing of socket areas of facades / horizontal waterproofing beneath walls / bonding layer on existing bitumen coats / renovation of old defective bitumen-based waterproofing in one product
— allows waterproofing of external basement walls and facade socket areas with one product
— sprayable using peristaltic pump technology or screw pump technology, e.g. Wagner PC 1030 with compression air support

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Consumption / yield

W1-E: ground damp and non-pressing water	min. 3.3 kg/m²	dry layer thickness ≥ 3 mm
W2.1-E: pressure water ≤ 3 m immersion depth	min. 4.3 kg/m²	dry layer thickness ≥ 4 mm
W3-E: non-pressure water (ground-contacting concrete ceilings)	min. 4.3 kg/m²	dry layer thickness ≥ 4 mm
W4-E: splash water areas (socket areas of facade), capillary water in and under walls	min. 2.2 kg/m²	dry layer thickness ≥ 2 mm
Bondcoat/contact layer on old bitumen layers	approx. 0.7 kg/m²	
Internal waterproofing in case of ground damp and non-pressure water	min. 2.2 kg/m²	dry layer thickness ≥ 2 mm
Internal waterproofing in case of pressure water (negative pressure)	min. 3.3 kg/m²	dry layer thickness ≥ 3 mm
Internal waterproofing in case of water tanks for water loads W1-B till W2-B (positive pressure)	min. 4.3 kg/m²	dry layer thickness ≥ 4 mm
Spot glue for insulation boards in case of W1-E	approx. 2 kg/m²	
Full-surface glue for insulation boards in case of W2.1-E	approx. 4 kg/m²	

Technical values

Application tool	masonry brush, spraying device, spatula
Consistency	slurryable, brush-grade, trowel-grade, spray-grade
Application temperature	1–30 °C air and object temperature
Application time	approx. 45 minutes (at 23 °C/50% relative humidity)
Compressive strength	> 0.3 MN/m²
Resistance to rain	approx. 1.5 hours with a 4 mm-thick layer
Full drying time	approx. 2.5 hours (at 23°C/50% RH), weather-resistant within 24 hours
Mixing ratio	1:1 (A:B)
Density after mixing	approx. 1.05 kg/dm³
Dry residue	≥ 98% by volume
Clean-up	with water while the product is still fresh
Composition	cement, selected silica sands, highly-reactive polymers, reactive fillers and additives

Storage

Shelf life	min. 12 months
Storage conditions	Dry, cool, frost-free, protected from sunlight, indoors, in the original sealed container

Application

Surfaces

concrete, screed, mineral subsurface, cementitious substrate, brick, masonry

Surface preparation

— The surface must be frost-free, solid, clean, sufficiently dry and free of tar pitch, oil, grease, honeycombs, cracks and protruding parts, as well as other contaminants.
— Water-repellent and adhesion-impairing components must be removed, edges must be broken off and grooves must be rounded.

— Joints and recesses > 5 mm must be filled, for example by using watertight patching mortar **weber.tec 933**.
— Internal angles between the concrete slab and the basement walls must be rounded in groove form with **weber.tec 933** with a radius of 5 cm.

Application

Primer:
— **weber.prim 900** undiluted or diluted with water in a ratio of 1:1. Once dry, the works for the scratch layer and for the waterproofing coats can begin.
Mixing:
— Mixing ratio: A + B components 1 : 1 parts by weight. Mix the material until a homogenous, lump-free and slurry-like mortar is achieved.
— The mixing time is approx. 2 to 3 minutes. Mixing equipment: a powerful electric drill and the stirrer **weber.sys mixing paddle no. 3**.
Scratch coat:
— After substrate preparation, if there are any unsealed recesses greater than 5 mm, such as mortar pockets, open butt joints or cavities, apply a full-surface scratch coat of **weber.tec Superflex D 24** and silica sand **weber.sys Hartquartz** 0.1–0.3 mm (mixing ratio 3:1 by volume). The scratch coat must be completely dry before the first layer is applied, to prevent damage.
Waterproofing of earth-contacting vertical surfaces:
— The application must be carried out in at least 2 coats. The second waterproofing coat should be applied as soon as the first coat is no longer at risk of damage. For ground dampness and non-pressurised water (W1-E), both layers can be applied 'wet-on-wet'. For non-pressurised water on earth-covered ceilings (W3-E) and pressurised water (W2.1-E), a woven fibreglass mesh **weber.sys 981** should be laid into the fresh waterproofing layer after the first coat has been applied.
Waterproofing of earth-contacting horizontal surfaces / floor:
— For waterproofing a concrete slab against ground dampness and non-pressurised water (W1-E), the application is carried out directly onto the slab. Once the waterproofing layers have dried completely, lay 2 PE foils as a protection layer/gliding layers, and afterwards the floating screed on the PE foil. In case of pressure water (W2.1-E), the waterproofing system should be applied onto the lean concrete (i.e., beneath the floor concrete slab). The thick-layer coating should be applied to the clean-layer woven fibreglass mesh **weber.sys 981** in the fresh first layer.
Renovation of old waterproofing:
— When renovating old waterproofing, please refer to the application tip "Renovating old bitumen waterproofing".

General notes

In pressurising water conditions, steel-reinforced concrete must comply with DIN EN 206 and DIN 1045.

In the case of strong sunlight, appropriate precautions must be taken, e.g. providing shade.

Fixing of protection boards by using **weber.tec Superflex D 24** and the refill of the excavation pit should be executed after setting the waterproofing coat.

For the protection of the waterproofing coat, we recommend our protection and drainage sheet **weber.sys 983**.

Comply with the national standards and/or guidelines; if not issued, and if requested, refer to the norm DIN 18533 ("Waterproofing of Ground-contacting Building Structures"), the "Guideline for Planning and Execution of Waterproofing Works with Polymer-Modified Bitumen Coatings (PMBC)" issued by the German Construction Chemicals Association, the "Guideline for Planning and Execution of Waterproofing of Ground-contacting Building Structures with Flexible Polymer-Modified Thick-Layer Waterproofing Coatings (FDP)" issued by the German Construction Chemicals Association, and the WTA leaflet 4-6 "Retrospective Waterproofing of Ground-contacting Structures" (WTA = International Association for Science and Technology of Building Maintenance and Monuments Preservation). In case of doubt, request technical advice.

All the characteristics mentioned in this data sheet are given at a temperature of 23°C, in the absence of draughts, and with a relative humidity of 50%.

Follow the guideline relating to waterproofing works of water-impermeable concrete structures (working joints and butt joints between pre-cast concrete wall elements and connection area between the water-impermeable concrete floor slab and wall elements); if not issued, request technical advice.

When completely dry, the waterproofing can be painted with **weber.ton** facade paints, preferably silicone resin paints, **weber. ton 411**, or silicate paints, **weber.ton 414**.

If a render is planned on top of the **weber.tec Superflex D 24** on the external socket of facades, the waterproofing layer must be thoroughly dried and covered with a quick-setting stipple coat **weber.san 951 S** over the entire surface.

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weber.tec Superflex D 24 is subject to regular quality control.

Special notes

Do not mix with other substances during mixing and application.

Observe additional instructions for the application of **weber.tec Superflex D24** reactive waterproofing.

Direct sunlight may cause slight colour changes.

When renovating old cationic bitumen coatings, the woven fibreglass mesh **weber.sys 981** must always be inserted over the entire surface between the 1st and 2nd new layer in accordance with WTA Merkblatt 4-6 "Retrofitting waterproofing to components in contact with the ground".

The consumption for filling and scratch levelling as well as additional consumption due to processing-related fluctuations of approx. 1 - 1.5 kg/m² must be calculated separately.

The product group "FPD" is currently not yet included in DIN 18533, the proof of usability is provided by so-called "AbP" - general building authority test certificates.

Deviations from DIN 18533 must always be contractually agreed. Observe the national standards.

Packaging units

Type	Unit	PU
2-component package	6 kilogram	36 multiple buckets / palett
2-component package	24 kilogram	18 multiple buckets / palett

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