

## Bitumen thick-film coating for structural waterproofing, polystyrene-filled

With general building inspection certificate

### Characteristics

ÖKOPLAST® 1K 20B is a thick bitumen coating filled with polystyrene, to be used either as single-component or as two-component product. It is resistant to aggressive substances normally occurring in the ground and is not harmful if it enters the groundwater. In its hardened state it is resistant to frost and gritting salt.

- Nearly odorless
- Flexible
- Good natural stability
- Polystyrene-filled
- Easy to apply
- Complies with DIN EN 18533

### Use

ÖKOPLAST® 1K 20B for waterproofing structural components in contact with soil as per DIN 18533 on walls, foundations and floor slabs in contact with soil as well as earth-covered ceiling panels.

- Soil moisture and non-pressing water W1-E
- Against external pressure water, moderate effect W2-E
- Against non-pressing water on earth covered ceilings W3-E
- Against spray water on the wall plinth as well as capillary water in and under walls in contact with soil W4-E
- For waterproofing wall connections to WU concrete as well as construction joints and butt joints of components made of concrete with high water resistance
- On non-plastered brickwork, concrete, plaster MG P II and P III as well as on old cleaned bitumen seals
- As an adhesive for insulation, protective and drain boards

### Areas of application:

- Cellars in residential and industrial buildings
- Floor slabs
- Underground garages
- Balconies, patios
- Wet rooms, showers
- Retaining walls
- As an adhesive for insulation, protective and drain boards

### Specifications

Packaging	PE bucket
Container size	30 l
Delivery form	18 units/pallet
Density	approx. 0.65 kg/l
Working temperature	+5 °C to +35 °C
Softening point (ring and ball)	> 100 °C
Elongation	approx. 120 %
Max. tensile strength	approx. 0.25 N/mm <sup>2</sup>
Crack bridging	
- without fabric insert	> 2 mm at +4 °C
Slot pressure test according to DIN 15814	> 0.75 bar
Fully hardened and load bearing <sup>1)</sup>	after 2 days
Storage	frost free and cool, 9 months

## Min. quantity req. acc. to DIN 18533

Scratch plastering 1 to 2 l/m<sup>2</sup>

### W1-E

Soil moisture and non pressing water 3.6 l/m<sup>2</sup>

### W2-E<sup>2)</sup>

Against external pressure water, moderate effect 4.8 l/m<sup>2</sup>

### W3-E<sup>2)</sup>

Non-pressing water on earth-covered ceilings 4.8 l/m<sup>2</sup>

### W4-E

Spray water and soil moisture on the wall plinth as well as capillary water in and under walls 3,6 l/m<sup>2</sup>

## Quantity as an insulating board adhesive

### W1-E

Selective adhesion approx. 2 - 3 l/m<sup>2</sup>

### W2-E / W3-E<sup>3)</sup>

Areal adhesion (Butt bonding) approx. 3 - 4 l/m<sup>2</sup>

- Depending on the individual construction site, the material amounts indicated above can increase by about 1 - 1.5 l/m<sup>2</sup> (due to uneven substrate or uneven material application). Leveling and scratch coats must be considered separately.

- Waterproofing measures against pressing water do not comply with DIN 18533 and must be approved separately with the customer before waterproofing works start.

<sup>1)</sup> At +20 °C and 60 % relative humidity.

<sup>2)</sup> As a rule a reinforcement fabric will be embedded in the whole area.

<sup>3)</sup> Please take the construction regulations of the panel manufacturer into consideration

## Preparation of the surface

The substrates must be firm, capable of taking loads, free of dust, dirt and mortar residues. Clean the base projections thoroughly. Completely remove sinter layers and impurities.

Outside edges have to be broken, all internal corners have to be designed as coving with **INTRASIT® SM 54Z** or the fast setting **INTRASIT® RZ1 55HSP** waterproof mortar. Paint or spray **IMBERAL® Aquarol 10D** as an undercoat on all absorbent mineral surfaces.

The substrate can be slightly moist. When there is the danger of penetration by moisture from the back, carry out an intermediate sealing with **INTRASIT® DS1 54Z**, **INTRASIT® Poly-C1 54Z** or **IMBERAL® RSB 55Z**. Old bitumen sealing that has stuck fast can be reworked with PMBC after cleaning. Close open joints, pores and voids up to 5 mm with **ÖKOPLAST® 1K 20B** as the scratch coat. Close joints wider than 5 mm, mortar pockets and holes with **INTRASIT® SM 54Z** or **INTRASIT® RZ1 55HSP**. Scratch coats and channels must have hardened before the waterproofing work begins.

## Application

DIN 18533 – Waterproofing of buildings

DIN 1053 – Masonry

Follow the directive for the design and planning of structural parts in contact with the ground with plastic-modified bitumen thick coating.

### Mixing with ÖKOPLAST® Plus 55Z:

**ÖKOPLAST® 1K 20B** comes ready for processing. If the reaction accelerator **ÖKOPLAST® Plus 55Z** will be used, add it to the bitumen mass as follows: stir **ÖKOPLAST® 1K 20B** briefly using a slow-running stirring tool (400 to 600 rpm) with a stirring paddle and intensively stir in the entire **ÖKOPLAST® Plus 55Z** bag. The mixing process takes approx. 1 minute and is finished when the mass is homogeneous and free of lumps.

### Surface sealing:

PMBC is processed in at least two passes. In case of soil moisture and non-pressing water as well as in the plinth area, the sealing layers can be applied whilst still wet. Against external pressure water, moderate effect, and with non-pressing water on earth-covered ceilings, the reinforcement **IMBERAL® VE 89V** is integrated in the first layer. The second layer is sealed when the first bonding layer is no longer damaged.

### Plinth and areas exposed to spray water:

When plastering subsequently or in the area of the clinker contact area we recommend waterproofing these areas with **IMBERAL® RSB 55Z**.

### Movable joints:

Carry out and integrate in the surface sealing expansion and structural joints with joint sealing tape **IMBERAL® FAB 89ZH**.

## Precautions

The waterproofing should be protected against damage. After the waterproofing has completely dried, the protective and drain layer **IMBERAL® Multidrain 89V** is applied. If suitable perimeter insulation boards are installed for protection, adhesion is made in relation to the load conditions applying the point-bulge procedure or over the complete area with PMBC or **IMBERAL® BEP-F 20B**.

Water seepage inside the waterproofing layer from the base of the basement or through accumulated water from the ceilings of the floors and rainfall pipes not yet connected should be prevented. No cohesive soil (containing clay or loam) should reach the waterproofing.

## hahne system products

IMBERAL® Aquarol 10D  
IMBERAL® BEP-F 20B  
INTRASIT® DS1 54Z  
INTRASIT® Poly-C1 54Z  
INTRASIT® RZ1 55HSP  
INTRASIT® SM 54Z  
IMBERAL® FAB 89ZH  
IMBERAL® VE 89V  
IMBERAL® Multidrain 89V  
IMBERAL® RSB 55Z

## Important notes

- Maintain a working temperature of +5 °C to +35 °C.
- Bubble formation due to deep pores or hollows in concrete should be prevented or reduced by means of scratch plastering.
- Do not apply the product in direct sunlight.
- If possible, arrange waterproofing penetrations in the area of soil moisture, non-standing seepage water. Here, the bitumen thick-coating can be processed to the penetration like channels.
- Use adhesive flanges or loose/fixed flanges for passages where there is water not under pressure. Openings in accumulating seepage water or ground moisture areas must always be made with loose/fixed flange screw connections.
- Gullies must be reinforced with plate edging or sheeting, integrating a woven tape.
- Apply protective layers and protective measures according to DIN 18533.
- Any deviations from DIN 18533 must, as a rule be contractually agreed separately.
- When laying perimeter insulation boards, also see the information sheet on the thermal insulation of components in contact with soil by the professional association Polystyol-Extruderschäumstoff (FPX).
- Clean tools with water immediately after use.

## Ingredients

Bitumen, polymers, emulsifiers, functional fillers

## Safety provisions/recommendations

Please observe general hygienic measures and protective measures when using chemicals! Wear adequate protective clothing!

## Disposal

The local waste removal regulations must be observed.

## Manufacturer

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