RADONTEC

AlphaSeal

Processing Instructions

September 2021

RadonTec GmbH
Hauptstraße 5
89426 Wittislingen - Germany
Tel: (+49) 9076 - 919 98 35
E-Mail: info@RadonTec.de
Website: RadonTec.de
Shop: radonshop.com

Version: 01

Scope of Content

1 Properties 4
2 Technical Data 5
3 Areas of Application 7
4 Substrate 8
5 Processing 9
5.1 Mixing 9
5.2 Application 9
6 Cleaning the equipment 14
7 Container and delivery form 14
8 Storage 14
9 Support and Contact 15
9.1 Troubleshooting/FAQ 15
9.2 Contact Us 15

1 Properties

RADONTEC ALPHASEAL is a fast, multifunctional, polymer modified thick coating (FPD) as a mineral coating for structural waterproofing in interior and exterior areas on horizontal and vertical surfaces also under screed, tiles and rising structures.
RADONTEC ALPHASEAL as a hybrid waterproofing combines the advantages of a polymer modified bitumen thick coating (PMBC) and a flexible mineral waterproofing slurry (MDS).
The material is quickly rainproof, water pressure resistant within 24 hours, viscoplastic, crack bridging, bitumen free, UV resistant, radon proof and can be used for insulation board bonding. RADONTEC ALPHASEAL is fast setting even at temperatures of + 2 °C and compatible with old bitumen thick coatings. After only 4 hours, insulation boards can be bonded and after 16 hours, filling can be carried out.
Can also be used on slightly damp substrates, can be painted and plastered over, e.g. with a base plaster.
When filled with quartz sand, it can also be used for substrate preparation and as coving mortar.
As FPD, RADONTEC ALPHASEAL can bridge cracks up to a maximum crack width change of 1.0 mm and is assigned to crack bridging class RÜ3-E according to DIN 18533-1 , or to crack class R3-B according to DIN 18535-1 .
As MDS, it can bridge cracks up to a maximum of 0.2 mm and is assigned to crack class R1-E according to DIN 18533-1 , or crack class R1-B according to DIN 18535-1.

2 Technical Data

Color	Dark grey
Solid	Ca. 90 Gew.-%
Density (+20°C)	Ca. 1,2 g/cm³
Processing temperature	+ 2°C bis + 30°C
Processing time	Ca. 45 min
Rainproof after	Ca. 2 h
Insulation board bonding after	Ca. 4 h
Can be filled after	Ca. 16 h
Radon tight	Ab 3 mm TSD
Resistant to pressurized water after	24 h (bis 10 m Water column)
Crack bridging	
PG-FDP (24 h, + 4°C)	> 2 mm bei 4 mm TSD
PG-MDS (24 h)	> 0,4 mm bei 3,2 mm TSD
DIN EN 14891 (standard climate)	> 3,5 mm bei 2,0 mm TSD

DIN EN 14891 (-5°C)	> 1,7 mm bei 2,2 mm TSD
Initial adhesive tensile strength	≥ 0,5 N/mm²
Tensile bond strength after contact with water	≥ 0,5 N/mm²
Tensile bond strength after heat aging	≥ 0,5 N/mm²
Tensile bond strength after freeze/thaw cycles	≥ 0,5 N/mm²
Tensile bond strength after contact with lime water	≥ 0,5 N/mm²
Water impermeability	Water impermeable and ≤ 20 g mass increase
Crack bridging under standard conditions	≥ 0,75 mm
Crack bridging at low temperatures -5°C	≥ 0,75 mm
Consumption	Ca. 2,4 – 4,8 kg / m²

3 Areas of Application

Versatile material for waterproofing buildings indoors and outdoors, especially in building repair, e.g. as base waterproofing. Especially applicable at temperatures from + 2 °C for fast building waterproofing.
Can also be used on old bituminous substrates or mineral waterproofing. Mixed with Quartz Sand it can also be used as a surface leveler and coving mortar, or without quartz sand as a scratch filler. Also suitable for bonding insulation systems in structural waterproofing. As waterproofing of concrete structures, e.g. bridges or their elements in contact with the ground and in areas close to the ground to protect against moisture ingress and any salts dissolved in it.
According to the test principles for obtaining the general building authority test certificates for flexible polymer modified thick coatings (FPD) and two-component, crack bridging mineral waterproofing slurries (MDS) in accordance with the administrative regulation Technical Building Regulations no. C 3.26, RADONTEC ALPHASEAL may be used for:
waterproofing of floor slabs and exterior walls in contact with the ground against ground moisture (capillary water, adhesive water) and non-accumulating seepage water according to water action class W1-E according to DIN 18533-1, additionally for waterproofing of building bases in splash water areas (only for MDS) and for waterproofing of ceilings above ground level according to water action class W3-E (only FPD).
horizontal waterproofing in and under walls against capillary rising damp according to water action class W4-E in

accordance with DIN 18533-1
the waterproofing of building components in contact with the ground against accumulating seepage water and water under pressure up to 3 m water column (for MDS: up to a maximum of 5 m foundation depth) in accordance with water action class W2.1-E as per DIN 18533-1 and
waterproofing of containers against water pressing from the inside (swimming pools, water reservoirs, storage tanks, etc.) indoors and outdoors up to a maximum filling height of 10 m in accordance with water action class W2-B in accordance with DIN 18533-1

4 Substrate

Dry or slightly damp, clean, free of grease and oil, free of loose particles. Existing fillets are to be checked for their function and, if necessary, new ones are to be created. Edges are to be chamfered.
Repair damaged concrete and plaster surfaces as well as cracks and holes with a depth greater than 5 mm beforehand with Barrier Mortar or RADONTEC ALPHASEAL filled with quartz sand.
Level defects up to 5 mm with a filled or unfilled scratch filler to avoid blistering. Old bituminous substrates are pretreated with an unfilled scratch filler.
Filled mixtures are made of 2 parts RADONTEC ALPHASEAL with 1 part quartz sand CT 483 (0.06 - 0.36 mm grain size).

5 Processing

5.1 Mixing

Add the powder to the liquid component in portions while stirring and mix intensively by means of a slow-running stirrer with a stirring paddle attached until a pasty, lump-free and homogeneous mass is obtained - mixing time at least 3 minutes.

5.2 Application

RADONTEC ALPHASEAL is to be applied in 2 working steps with a notched or smooth trowel or sprayed. Also suitable are all worm pumps from b&m, e.g. the BMP7; hose 10 m, 3/4"; nozzle 6.5 mm; motor power 1 gear, speed 10 %.
The applications have to be carried out in short time intervals. (The second coat is applied when the first coat is no longer damaged by the application of the second coat). The waterproofing must be applied free of defects, evenly and in a thickness corresponding to the requirements. The specified minimum layer thickness must not be undercut at any point and / or exceeded by 100 %. The surface waterproofing in the wall area must extend at least 10 cm to the face of the floor slab or foundation. The exterior waterproofing must be brought up to the existing horizontal waterproofing in all areas. In areas where there is a risk of cracking, on old bituminous paints or coatings, at the transition of fillets and when waterproofing in accordance with DIN 18533, the

Reinforcement Mesh must be embedded in the center.
RADONTEC ALPHASEAL can be applied on old bituminous primers or old bituminous exterior waterproofing after prior application of a scratch coat. When applying two individual layers, the second layer may only be applied if the first layer is not damaged during application. Exposure to rain for up to 2 hours after application, as well as exposure to frost, water and sunlight must be excluded until the coating is completely dry.
RADONTEC ALPHASEAL has been optimized for fast rain resistance, early curing and good crack bridging properties especially for cooler, humid weather conditions.
Therefore, in dry, sunny, windy and warm climates, rapid superficial curing occurs. In these cases, the material should be smoothed immediately during application and then not reworked until hardening. water must not be added.
The waterproofing must be protected against damage before backfilling the excavation.

Consumption Approx. 2.4 - 4.8 kg / m²

... when used as FPD	TSD [mm]	NSD [mm]	Consumption [kg/m²]
W1-E: soil moisture and non-pressing water according to DIN 18533:2017-07	3,0	3,2	Ca. 3,6
W2.1-E: moderate exposure to pressing water (immersion depth ≤ 3 m) according to DIN 18533:2017-07	4,0	4,2	Ca. 4,8
W2-B: tank waterproofing according to DIN 18535:2017-07 up to ≤ 10 m filling level	4,0	4,2	Ca. 4,8
W3-E: non-pressing water on earth-filled ceilings according to DIN 18533:2017-07	3,0	3,2	Ca. 3,6
W4-E: splash water and soil moisture at the wall base as well as capillary water in and under walls according to DIN 18533:2017-07 TSD: minimum dry film thickness.	2,0	2,1	Ca. 2,4

... when used as PMBC	TSD [mm]	NSD [mm]	Consumption [kg / m²]
W1-E: soil moisture and non-pressing water according to DIN 18533:2017-07	3,0	3,2	Ca. 3,6
W2.1-E: moderate action of pressing water (immersion depth ≤ 3 m) according to DIN 18533:2017-07	4,0	4,2	Ca. 4,8
W3-E: non-pressing water on earth-filled ceilings according to DIN 18533:2017-07	4,0	4,2	Ca. 4,8
W4-E: splashing water and soil moisture at the wall base as well as capillary water in and under walls according to DIN 18533:2017-07 TSD: minimum dry film thickness.	3,0	3,2	Ca. 3,6

... when used as MDS	TSD [mm]	NSD [mm]	Consumption [kg / m²]
W1-E: soil moisture and non-pressing water according to DIN 18533:2017-07	2,0	2,1	Ca. 2,4
W2.1-E: moderate action of pressing water (immersion depth ≤ 3 m) according to DIN 18533:2017-07	2,5	2,7	Ca. 3,1
W3-E: non-pressing water on earth-filled ceilings according to DIN 18533:2017-07	2,5	2,7	Ca. 3,1
W4-E: splashing water and soil moisture at the wall base as well as capillary water in and under walls according to DIN 18533:2017-07 TSD: minimum dry film thickness.	2,0	2,1	Ca. 2,4

Other consumptions	
As board adhesive	Mind. 3,0 kg /m ²
As scratch coat*	Ca. 0,8 kg / m²
As carbon throat*	Ca. 0,3 kg / m

***: including fire-dried quartz sand**

6 Cleaning the equipment

Immediately after processing with water.

7 Container and delivery form

25 kg combi container:

2 x 7.2 kg powder component

2 x 5.3 kg liquid component

8 Storage

Cool but frost-free and dry. Can be stored for at least 9 months in original sealed containers.

9 Support and Contact

9.1 Troubleshooting/FAQ

You will find answers to the most frequently asked questions on our website:

https://www.RadonTec.de

9.2 Contact Us

Should you have any further questions or require further help and technical support, please do not hesitate to contact us.

RadonTec GmbH
Hauptstraße 5
89426 Wittislingen - Germany
Tel: (+49) 9076 - 919 98 35
E-Mail: info@RadonTec.de
Website: RadonTec.de
Shop: radonshop.com