BOTAMENT®
SYSTEMBAUSTOFFE □□□□

BOTAMENT® RD 1 Universal

Fast, multi-functional reactive sealant 1c

BOTAMENT® RD 1 Universal is a one-component, rapidly setting reactive sealant for the waterproofing of structural elements that are in contact with the ground in new buildings and for the repair of existing waterproofing.
BOTAMENT® RD 1 Universal is certificated according to the European technical approval (ETA-18/0327) as a flexible polymer thick coating.
BOTAMENT® RD 1 Universal is tested according to BS EN15814 and BS EN 14891.

Properties

- Fast waterproofing of building structures
- With ETA certification
- Ready for use and without priming
- Highly flexible and crack-bridging
- Easy taking out of partial material quantities
- Can be painted and plastered over or covered with tiles
- With visible curing control
- High UV, frost and aging resistance
- Free from bitumen and solvents
- Tested as a composite sealant below tile coverings
- Tested according to BS EN 14891

Application areas

- waterproofing of basement walls, floor slabs, foundations, balconies and terraces
- sealing of plinth walls
- composite sealant below tile coverings
- repair of existing waterproofing on structural elements
- partial repair of roof sealants
- intermediate sealant under screeds
- horizontal waterproofing in and underneath walls
- waterproofing of water features in landscape gardening
- repair works

Suitable substrates

For the use of BOTAMENT® RD 1 Universal as waterproofing of structural elements

- mineral substrates
- old, stable bituminous waterproofings
- many standard plastics used in construction (pipes/ penetrations)
- metal substrates
- timber substrates

For the use of BOTAMENT® RD 1 Universal as composite sealant

- mineral substrates
- metal substrates
- timber substrates
- gypsum based substrates
- BOTAMENT® BP building boards
- old tiling

Substrate preparation

The substrate must be in the following condition:

- stable, clean and frost-free
- free from grease, paint, cement laitance, separating agents, sinter layers, honeycombs, protruding mortar residues and loose particles
- cut off protruding horizontal waterproofing so it sits flush

Mineral substrates must be slightly damp or pre-wetted prior to the application of the first waterproofing layer.
Non-absorbent substrates (e. g. bitumen, metal, timber or plastic) and gypsum based substrates must be dry.
To ensure an optimal contact to each substrate and to close fine air voids in the surface of mineral building materials a scratch coat has to be done prior to the application of the first waterproofing layer.

Levelling of profilings, large-scaled defects and unevennesses

- mix BOTAMENT® RD 1 Universal with 30 % of dried quartz sand of grain size 0.5 – 1.2 mm, apply the necessary layer thickness and smooth immediately

Please also note:

- mounting parts made from PVC, steel and gunmetal must be cleaned thoroughly, removing any grease and must be roughened up (keyed)
- lightly sanding substrates must be primed with BOTAMENT® D 12 pre-treat deep silification
- close off defects and open butt joints
  < 5 mm width → with BOTAMENT® RD 1 Universal
  ≥ 5 mm width → with BOTAMENT® M 36 Speed or M 35 Multi-mortar

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Technical data

material basis	polymer dispersion, additives
colour	green
packaging	2.5 kg 10 kg 30 kg 350 g cartridge (12 pieces/ box)
pallet delivery	144 x 2.5 kg 33 x 10 kg 12 x 30 kg
storage	frost-free, cool and dry at least 12 months in its original sealed container
density	~ 1.1 kg/ dm³
s_d- value dry layer thickness: 2,0 mm 2,5 mm	 ~ 28 m ~ 35 m
pressure load-bearing capability	3 N/ mm²
working time	> 1.5 hours
max. layer thickness (wet) non-stretched stretched with sand	 5 mm 20 mm
rain-resistant	after ~ 6 hours
bonding of drainage and insulation boards	after ~ 8 hours
consumption	~ 1.4 kg/ m²/ mm
ready to receive mechanical loads	after ~ 24 hours
consistency	can be applied by trowel, painted on or sprayed on
application and substrate temperature	+ 5 °C to + 35 °C
cleaning agent	
when fresh	water
when fully cured	by mechanical means

All times stated refer to the standard atmosphere of + 23 °C and 50 % relative humidity.
Higher temperatures and lower humidity accelerate, while lower temperatures and higher humidity delay curing.

Application

Use of BOTAMENT® RD 1 Universal as waterproofing of structural elements

BOTAMENT® RD 1 Universal is applied using a paste brush, smoothing trowel or spray device onto the dried scratch coat. The application of BOTAMENT® RD 1 Universal has to be done in at least two layers.
In case of of ground moisture or non-standing seepage water the second layer can be applied fresh in fresh onto the first layer, in case of pressing water the first layer has to be cured so far that it cannot be damaged by the application of the second layer.
It is not necessary to work a glass fibre mesh into a layer of BOTAMENT® RD 1 Universal. To cover joints and to produce connections, internal corners, transitions and penetrations, we recommend working BOTAMENT® SB 78 sealing tape into the first layer of the waterproofing using the suitable accessories and then to cover these with the second layer which should be smoothed over with a paint brush.
BOTAMENT® RD 1 Universal has to be run at least 10 cm deep onto the facing side of the foundation or the floor slab (at least 15 cm in case of water-impermeable concrete).
In areas which are exposed to high humidity (such as for instance the wall/floor slab connection area in excavations) internal corners are formed as a concave moulding by using the sealing mortars BOTAMENT® M 36 Speed Multi-functional rapid cement mortar or BOTAMENT® M 35 Multi-mortar. Prior to application of the first waterproofing layer of BOTAMENT® RD 1 Universal the sealing mortar must have fully cured.
Curing is complete when the waterproofing is no longer the colour it was when fresh (light green), but has turned dark green across the entire area.
If BOTAMENT® RD 1 Universal is to be applied using the spray method, we recommend contacting the experts from our technical department first.

Use of BOTAMENT® RD 1 Universal as Waterproofing of butt and construction joints in concrete structures with a high resistance against water penetration (water-impermeable concrete)

Here BOTAMENT® RD 1 Universal must be applied across the entire joint width of ≥ 30 cm (≥ 15 on either side of the joint) in at least two layers (integrate glass fibre fabric BOTAMENT® GS 98 into the first layer).

Use of BOTAMENT® RD 1 Universal as composite sealant

The subsequent tile fitting can be performed with one of the BOTAMENT® tile adhesives.
Joints, internal and external corners as well as penetrations are covered by including BOTAMENT® SB 78 System Sealing Tape and accessories in the first layer of the sealant material and worked over with the second layer.

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Important tips

When waterproofing building structures in contact with the ground all valid technical standards and guidelines must be observed in their current versions.

BOTAMENT® RD 1 Universal should not be applied onto areas getting plenty of sunshine.

When work is interrupted during application, extend BOTAMENT® RD 1 Universal down to a feather finish. Work is continued with an overlap. Interruptions in the area of corners and edges are not permissible.

In case of punctual peeling off from the substrate the functionality of the sealing is conserved within the area due to the high inner material stability.

The filling of the building pit may not occur until BOTAMENT® RD 1 Universal has completely cured.

For the protection of the waterproofing we recommend BOTAMENT® DS 993 drainage and protection board.
BOTAMENT® RD 1 Universal does not serve as a vapour barrier.

BOTAMENT® RD 1 Universal is suitable as composite sealant according to BS EN 14891 used under tiles in connection with all BOTAMENT tile adhesives.

For durable sealings against negative water pressure our sealing slurries BOTAMENT® M 34 und BOTAMENT® MS 30 are suitable.

Prior to the application of plasters onto the fully dried waterproofing of BOTAMENT® RD 1 Universal we recommend to apply a mineral contact layer made of BOTAMENT® M 35 Multi-mortar in horizontal direction by using a toothed trowel.

In case of waterproofing swimming pools please contact our technical department.

You can view or download the safety datasheet at **www.botament.com**.

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ETA -18/0327

BOTAMENT RD 1 Universal

This construction product is a flexible polymer modified mineral thick coating for waterproofing of buildings. The coating is highly flexible, crack-bridging, frost-resistant and UV-resistant.

EAD 030295-00-0605

Essential characteristics	Performance
Fire classification	class E
Crack-bridging properties	class CB2
Resistance to rain	see ETA-18/0327
Water resistance	see ETA-18/0327
Durabiltiy in water storage by testing the bond strength	see ETA-18/0327
Dampfdiffusion Water vapour transmission	μ_{H2O} ≥14050
Determination of carbon dioxide permeability	$s_d CO_2$ ≥200
Determination of watertightness	see ETA-18/0327
Resistance to compression	class C2B
Watertightness in end use conditions	see ETA-18/0327
Freeze-Thaw resistance	see ETA-18/0327
Dry film thickness	see ETA-18/0327
Flexibility at low temperatures	see ETA-18/0327
Determination of water tightness in end use conditions	see ETA-18/0327
Umweltwirkungskategorie Environmental impact categories	NPD

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EN 14891:2012

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Water-impermeable, dispersion-based product which is processed liquid with enhanced crack-bridging ability at low temperatures (-20 °C) and stability to contact with chlorine water

EN 14891: DM O2P

Initial tensile adhesion strength	≥ 0,5 N/mm²
Tensile adhesion strength after water contact	≥ 0,5 N/mm²
Tensile adhesion strength after heat ageing	≥ 0,5 N/mm²
Tensile adhesion strength after freeze-thaw cycles	≥ 0,5 N/mm²
Tensile adhesion strength after contact with lime water	≥ 0,5 N/mm²
Waterproofing	no penetration
Crack bridging ability at normal conditions	≥ 0,75 mm
Tensile adhesion strength after chlorine water contact	≥ 0,5 N/mm²
Crack bridging ability at low temperatures (-5 °C)	≥ 0,75 mm
Crack bridging ability at very low temperatures (-20°C)	≥ 0,75 mm

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Consumption

application area	consumption (kg/m²)	≙ wet layer thickness (mm)	≙ dry layer thickness (mm)
scratch coat	0.5- 1.2*	-	-
waterproofing of structural elements			
waterproofing in case of splash water and ground moisture at plinth walls according to ETA-18/0327	2.9	2.7	2.0
horizontal waterproofing in and under walls according to ETA-18/0327	2.9	2.7	2.0
waterproofing in case of ground damp and non-standing seepage water according to ETA-18/0327	2.9	2.7	2.0
waterproofing in case of pressing water (moderate exposure) according to ETA-18/0327	3.6	3.3	2.5
waterproofing in case of pressing water (high exposure) according to ETA-18/0327	5.8	5.4	4.0
waterproofing of joints in water-impermeable concrete structures	5.8	5.4	4.0
waterproofing in case of pressing water from the inside	3.6	3.3	2.5
composite sealant			
composite sealant for low water exposure in interior rooms (e. g. private bath rooms)	0.8	0.7	0.5
composite sealant according to BS EN 14891	2.9	2.7	2.0

* depending on the roughness and the planarity of the substrate