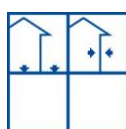




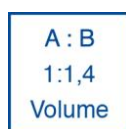
Technical Data Sheet Art. No. 3014

Multi-Tight 2K

Combines the properties of a solvent-free, flexible waterproofing grout (MWG) and a bitumen thick coating for waterproofing buildings (PMBC)



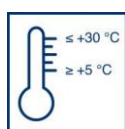
Floor/wall
indoors and
outdoors



Mixing ratio 2-
components



Mixing time



Working
temperature



Mortar cover /
filling knife /
trowel applica-
tion/spray
application



Total applica-
tion rate per
mm
thick layer



Shelf-life



Store frost-free
and cool
protected from
moisture in
closed containers

Range of use

- For fast waterproofing of building elements, tanks, reservoirs and basements
- Against ground damp, non-standing seepage water, in wet rooms, standing seepage water and external water pressure in accordance with DIN 18195
- Waterproofing in and under walls as a horizontal barrier against rising damp in masonry work
- Waterproofing the contact area beneath facing masonry and clinker wall positioning areas
- Waterproofing in a bond with tiles and slab covers, indoors and outdoors (load class A0/B0)
- Internal waterproofing according to the WTA Code of Practice 4-6
- For attaching perimeter insulation panels
- Plinth waterproofing when combined with plinth render and bonded thermal insulation systems
- Render waterproofing
- Flat roof waterproofing with a low vapour pressure gradient over rooms that are not heated / not inhabited, e.g. garages

Characteristic data of the product

Base:	polymer binder, cement, additives, special fillers
Bulk density of fresh mortar:	approx. 1.1 kg/dm ³
Consistence:	paste
Working time:	30 - 60 min.
Water impermeability:	up to a 10 m water column
Time until thoroughly dry:	approx. 18 h (5°C/70% relative humidity)*
Cross-slit pressure test:	passed without a layer of reinforcement
Crack-bridging:	≤ 3 mm (with a dry layer ≤ 3 mm thick)
Layer thickness:	a 1.1 mm thick wet layer produces an approx. 1 mm thick dry layer
Water vapour diffusion resistance coefficient μ:	approx. 6600

*Depending on weather conditions and the thickness of the fresh layer, the drying time given may be shorter or longer. Applies for a layer 2 mm thick.

Property profile

Remmers Multi-Tight 2K is liquid, polymer thick coating that combines the properties of a flexible, mineral waterproofing grout (MWG) and a polymer modified bitumen thick coating (PMBC):

- Solvent-free
- Low emissions
- Bitumen-free
- Highly flexible and crack-bridging
- Fast thorough drying and cross-linking after just 18 hours

- Can be applied as a grout, filler or sprayed
- High compressive strength
- Quickly water pressure tight, 1 bar after 18 h
- Rain tight after approx. 2 hours
- Water pressure tight without a layer of reinforcement
- Visible control of thorough drying
- High tensile adhesion strength on mineral substrates and old bitumen
- Can be used on vertical and horizontal surfaces as well as beneath screeds
- Can be coated over
- UV resistant
- Resistant to de-icing salt
- Frost and age resistant
- Can be quickly subjected to foot traffic and covered ($\geq 4h$)

Possible system products

- Kiesol
- Waterproofing Grout
- Sulfatex Grout
- Sulfatex Rapid Filler
- Waterproofing Filler
- Remmers Restoration Renders
- Compound Mortar/Compound Mortar S
- Selectmix 25
- Water Stop SK 10/25
- Water Stop VF series
- Water Stop B 200/300
- Multi-Cement
- Flex Cement Rapid

Substrate

Suitable substrates are:

- Mineral substrates
- Old bitumen, metal (e.g. stainless steel and aluminium), coated wood and plastic window frames

The substrate must be clean, load-bearing and free of substances that could interfere with adhesion. Matt damp surfaces are permitted. The substrate must be solidly filled and plane.

Close indentations > 5 mm such as joints, holes or broken out areas with a suitable filler, (e.g. Remmers Waterproofing Filler) or, after priming and applying an adhesive grout, with Multi-Tight 2 K mixed with Selectmix 25 (quartz sand 0.2

- 2.0 mm) in a mixing ratio of 1 : 1 to 1 : 2, wet-on-wet.

Beak off or slope corners and edges. Remove projecting seams and the remains of mortar. Close coarse-pore substrates (e.g. inherently porous, light-weight concrete blocks) first by applying a filler (e.g. Remmers Waterproofing Filler). Pre-wet highly absorbent substrates. Deep silicification treatment consisting of Kiesol diluted 1:1 with water is then applied to all absorbent, mineral substrates, using an application rate of approx. 100 g/m².

To prevent blisters, apply a scratch coat of Multi-Tight 2 K within the reaction time of the primer, using an application rate of approx. 800 g/m². The scratch coat is not deemed as a layer of waterproofing.

Wet surfaces and surfaces that could become very damp while the scratch coat is still fresh should be pre-sealed first with Kiesol and the Remmers grouting system (protection against moisture from behind/internal waterproofing).

Application

■ Horizontal waterproofing in and beneath walls

Prime the cleaned concrete floor slab in the wall positioning area approx. 50 mm wider than the width of the wall with Kiesol (diluted 1:1 with water) and waterproof with two layers of Multi-Tight 2K as a grout. The second layer is applied as soon as the first will not be damaged when worked over (approx. 2 hours). The above ground wall should only be bricked up after the waterproofing has sufficiently dried.

■ Sealing cove:

Produce a sealing cove in the clean wall position area with a radius of 5 cm. To improve adhesion and to provide protection against the penetration of moisture from behind, apply a basic silicification treatment consisting of Kiesol (diluted 1:1 in water) and Remmers Waterproofing Grout, starting 15 cm below the upper edge of the slab and leading over the 2nd horizontal joint (but at least 20 cm high). Wet-on-wet, place

a sealing cove made of Waterproofing Filler.

As an alternative, the curves in interior corners can also be executed with Multi-Tight 2K to which Selectmix 25 has been added (Art. No. 4047) (mixing ratio 1:2). This mortar is applied wet-on-wet to the scratch coat of unfilled Multi-Tight 2K.

■ Vertical surface waterproofing:

Apply at least two uniform layers of Multi-Tight 2K, pore-free. The second layer is applied as soon as the first will not be damaged when worked over. The minimum application rates and total thickness of the layers should be observed, checked in the fresh state with a layer thickness gauge and documented, if necessary.

■ Horizontal surface waterproofing:

When waterproofing against ground damp and non-standing seepage water, execute as described above for waterproofing vertical surfaces. After the waterproofing has thoroughly dried, place two layers of PE sheet over the waterproofing as a parting plane and for protection before the screed is placed. Waterproofing against standing seepage water or water pressure is carried out on the reinforced sub-layer of concrete beneath the floor slab. When waterproofing balconies, terraces and wet cells, Multi-Tight 2K is applied up to the upper edge of the floor or the horizontal barrier.

■ Pipes passing through walls

For ground damp and non-standing seepage water, waterproof pipes passing through walls flexibly with Multi-Tight 2K in the form of a cove. Roughen plastic pipes with sandpaper. Clean metal pipes and sand if necessary.

When an adhesive flange or loose/fixed flange is used for pipes passing through walls, they should be bedded into the waterproofing. For loads / water loads according to DIN 18195 part 4 + 6, Remmers Pipe Flange (Art. No. 4349-4351) can be used.

■ Connection details/building element joints

Corners and connection joints in permanently wet areas should be bridged with the VF Water Stop System. Water Stop VF 120 (Art. No. 5071-5072) is worked into the fresh first layer of Multi-Tight 2K, following the course of the joint.

For pipes passing through walls and floor openings, integrate Floor and Wall Gasket VF.

The connection of building waterproofing that leads to rising building elements (e.g. windows and doors that go down to the floor) is executed with the SK 10/ SK 25 (Art. No. 5017 and 5003) Water Stop System. The self-adhesive water stop is cemented to the grease-free, cleaned, transition area. The water stop is then coated twice with Multi-Tight 2K.

■ Application of render

If render is to be subsequently applied, an additional layer of grout should be applied to the last layer of waterproofing. Throw Remmers Preparatory Mortar (Art. No. 0400) over the entire surface of the fresh layer of grout and allow to set for 24 - 48 hours. Work can be continued with Compound Mortar and reinforcement mortars after approx. 4 hours. In this case, a scratch coat of the respective mortar should be applied first.

■ Follow up work and covers

After 4 hours, work can be continued with cementing mortar, filling mortar or reinforcement mortar. Tiles and slabs should be cemented in place with Remmers Flex Cement Rapid or Multi-Cement. To increase tensile adhesion strength, a scratch coat can be applied to vertical surfaces first with the respective cement.

■ Coating

To match the colour, e.g. on rising areas of the facade, Multi-Tight 2K can be coated with a binder-rich, dispersion paint such as Remmers Concrete Acrylic (Art. No. 6500, 6529, 6530).

Protection/drainage layer

The thoroughly dry waterproofing must be protected from mechanical damage. To protect the waterproofing system, we recommend Remmers DS System Protection (Art. No. 0823).

Directions

Shake the liquid component well before using. The powder component is added to the liquid component. Remove material that adheres to the side of the bucket with a trowel and mix with a suitable mixing tool until homogeneous, lump-free and the proper consistency for application with a brush or filling knife has been achieved. Mixing time is approx. 3 minutes. If required, smaller quantities can also be mixed in a ratio of 1 part by weight liquid to 1.36 parts by weight powder. The mixing ratio should not be changed. The subsequent working operations are executed as described under Applications in a brushing or filling procedure. The maximum total wet layer thickness should not exceed 5 mm.

Do not use if the temperature of the air, substrate or building material is below +5 °C or above +30 °C. Relative humidity should not exceed 95%. Do not use in direct sunlight; observe the rules for the application of render according to the position the sun, remaining in the shade (pre-wet surfaces that are strongly heated) or work in the morning or evening hours. The waterproofing is sensitive to rain and frost in the fresh state.

Notes

When waterproofing building elements in contact with the ground using Multi-Tight 2K according to VOB/B, make sure that application is clearly stated in detail in the Specification of Works pursuant to ATV DIN 18 336 "Waterproofing Works".

The guideline "Planning and Execution of Waterproofing with Flexible Waterproofing Grouts", published by Deutsche Bauchemie, 2nd

edition as per 2006, should also be observed.

An agreement must be made with the owner of the building for the use of Multi-Tight 2K for the application areas described in this TDS.

When executing waterproofing works, observe the information given in the respective test certificates.

Special agreements as well as test certificates can be downloaded from the Internet at www.remmers.de

Multi-Tight 2K is not suitable for waterproofing under elevated piles

Tools, cleaning

Adjustable drill with suitable mixing tool (1000 W and 700-900 rpm), smoothing trowel, smoothing float, filling knife, 2 mm floor finishing trowel, tongue trowel.

Spraying equipment: With suitable peristaltic or spiral pump (e.g. ino-BEAM M8). A compressor with an output > 600 l/min is required for atomisation of the material.

As long as the material has not yet dried, tools can be cleaned with water. Initially dried material can only be removed by mechanical means.

Packaging, application rate, shelf-life

Packaging:

25 kg combi-container, polymer and powder components are packaged in the proper mixing ratio

- Powder component: 3 tube bags à 4.8 kg
- Liquid component: 1 plastic bucket à 10.6 kg

Application rate:

Protection against the penetration of moisture from behind:
Per basic silicification treatment:

0.1 kg/m² Kiesol and 1.6 kg/m² Waterproofing Grout

Primer:

0.1 kg/m² Kiesol

Multi-Tight 2K

1.2 kg/m² corresponds to an approx. 1 mm thick dry layer

Layer thickness and application rate for use as a crack-bridging MWG in indoor and outdoor areas:

Load groups:	Dry layer thickness (mm)	Wet layer thickness (mm)	Application rate (kg/m ²)	Yield 25 kg (bucket) (m ²)
Waterproofing in and under walls	≥ 2.0	approx. 2.2	approx. 2.5	approx. 10.0
Splash water / plinth waterproofing	≥ 2.0	approx. 2.2	approx. 2.5	approx. 10.0
Ground damp and moisture	≥ 2.0	approx. 2.2	approx. 2.5	approx. 10.0
Standing seepage water and water pressure	≥ 3.0	approx. 3.3	approx. 3.7	approx. 6.8
Waterproofing in transition to water impermeable concrete elements	≥ 5.0	approx. 5.6	approx. 6.2	approx. 4.0
Installation > 3 metres	≥ 3.0	approx. 3.3	approx. 3.7	approx. 6.8
Water reservoirs with water depths up to 10 metres	≥ 3.0	approx. 3.3	approx. 3.7	approx. 6.8
Moisture on ceiling surfaces	≥ 3.0	approx. 3.3	approx. 3.7	approx. 6.8

Application rates for levelling and scratch coats must be calculated separately.

When applied by hand, the application rates given may need to be increased.

Shelf-life:

In unopened, original containers stored frost-free, dry and protected from the effect of strong heat, shelf-life is 9 months.

Safety, ecology, disposal

Further information on safety when transporting, storing and handling as well as disposal and ecology is found in the latest Safety Data Sheet.



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Multi-Tight 2K

Liquid applied, water impermeable product for external installations on walls and floors, beneath ceramic tiling (bonded with Remmers C2 adhesives in accordance with EN 12004)

Initial tensile adhesion strength: ≥ 0.5 N/mm²

Tensile adhesion strength after contact with water: ≥ 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 strength after contact with lime water: ≥ 0.5 N/mm²

Waterproofing: No penetration

Crack-bridging ability at normal conditions: ≥ 0.75 mm

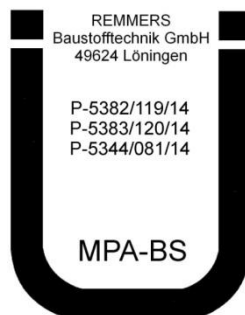
Crack-bridging ability at low temperatures: ≥ 0.75 mm at - 5 °C

Release of dangerous substances: NPD

The statements above are compiled from our field of production and according to the latest technological developments and application techniques.

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