



Technical Data Sheet Art. No. 3014

Multi-Tight 2K

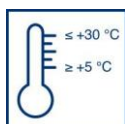
Unites the properties of a solvent-free, flexible waterproofing grout (MWG) and a bituminous thick coating for waterproofing buildings



For use outdoors and floors indoors



Mixing ratio
2 components



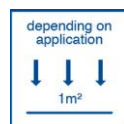
Working temperature



Working time



Mortar cover /
apply with
filling knife/
trowel/spraying



Application
rate depending
on use



Shelf-life



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

Range of use

- For quickly waterproofing building elements, tanks and basements in one day
- According to DIN 18195 against ground damp, non-standing seepage water, in wet rooms and on standing seepage water and exterior water pressure in the Kiesol System.
- For waterproofing under ceramic tiles in indoor and outdoor areas (load class A0/B0)
- As attachment cement for perimeter insulation
- As a horizontal barrier against rising damp in masonry work
- As highly flexible building and plinth waterproofing, also in connection with plinth render and full thermal insulation
- As a mineral interior waterproofing system according to WTA Code of Practice 4-6
- For waterproofing construction joints on water impermeable basements by bedding Remmers Reinforcement Fabric 2.5/100 or 2.5/25 (Art. No. 4176/4177) or for cementing B series water stops.

Characteristic data of the product

Base:	polymer binder, cement, special fillers, additives
Density of the ready to use mixture:	approx. 1.2 kg/dm ³
Consistence:	paste form
Working time:	approx. 30-45 min., depending on ambient conditions
Water impermeability:	fulfilled (accord. to DIN 18195-6)
Time until thoroughly dry:	approx. 24 hours (20 °C/70 % relative humidity)*
Cross-slit pressure test according to National Technical Test :	fulfilled, also without a layer of reinforcement
Crack-bridging:	≥ 2 mm (3 mm thick layer)
Pressure behaviour under a pressure load > 0.9 MN/m ² :	dry layer thickness consistently > 75 % according to test report
Layer thickness:	A 1.25 mm thick fresh layer produces an approx. 1 mm thick dry layer
Water vapour diffusion resistance coefficient μ:	4,000

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

Property profile

Remmers Multi-Tight 2K is a combination building material made of a solvent-free, polymer modified

mineral waterproofing grout (MWG) and a thick coating that is used to flexibly waterproof structures in indoor and outdoor areas,

new and old buildings, and has the following properties:

- Environment-friendly and solvent-free
- Highly flexible, expansion capable and crack-bridging
- Grout, filling and spraying consistency
- High compressive strength
- Quickly rain tight because of fast reaction components
- Adheres to all mineral substrates and old bitumen based substrates
- For use on vertical and horizontal surfaces and under screeds
- Resistant to algae, rot and de-icing salt
- Resistant to frost and aging
- Strong adhesion to the substrate, water pressure tight even with a negative water load
- Corresponds to the Codes of Practice and guidelines for waterproofing buildings with PMB and crack-bridging MWG
- Exceeds the material properties required by DIN 18195 for building waterproofing

Substrate

For all mineral substrates such as sand-lime brick, brick, concrete block, concrete, aerated concrete and cement screed. Good adhesion is also achieved on the following substrates: old bitumen, metal (e.g. stainless steel and aluminium), varnished wood/plastic window frames (pre-testing may be necessary).

The substrate must be clean and sound, free of oil, grease and release agents. Matt damp surfaces are permissible. Wet substrates must be additionally pre-treated with Waterproofing Grout or Sulfatex Grout. The substrate must be solidly filled and plane. Remove projecting seams and the remains of mortar. Break off or slope edges and corners, especially on floor slabs and cantilevered slabs. Close indentations > 5 mm such as mortar pockets, open vertical and horizontal joints and broken out areas with a suitable mortar, e.g. Remmers Waterproofing Filler or Multi-Tight 2 K mixed with Selectmix 25, Art. No. 4047 (mixing ratio 3:1).

Prime mineral substrates with Kiesol (diluted 1:1 in water). After basic silicification treatment, apply a scratch coat. The primer should be thoroughly absorbed by the substrate and the surface air dry before the first coat is applied.

Do not spray Kiesol between layers or on the surface of the waterproofing! To avoid blisters and to level surfaces with pores and pipes, especially on concrete but also masonry bricks with profiled surfaces, apply a scratch coat of Multi-Tight 2K after priming. In case of substrates with porous aggregate particles (e.g. concrete or light-weight concrete blocks), a scratch coat produces a closed surface.

Use as a PMB for waterproofing new buildings

■ Horizontal waterproofing under walls:

Prime the cleaned concrete floor slab in wall positioning areas approx. 50 mm wider than the walls with Kiesol (diluted 1:1 in water) and apply 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. Lay the first course of masonry on the last fresh layer of grout with mortar.

■ Sealing cove:

Produce a sealing cove on the cleaned wall positioning 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 10 cm below the upper edge of the slab and leading over the 2nd horizontal joint (but at least 20 cm high).

Wet-in-wet, place the cove made of Waterproofing Filler. On wet substrates, the basis silicification treatment must be applied to the entire surface. If measures have been taken to ensure that water cannot penetrate from behind, only the sealing cove area is grouted. Surfaces without protection against the penetration of moisture from

behind must be primed with Kiesol (diluted 1:1 in water).

A grouting procedure is recommended for work in the sealing cove area.

■ Vertical surface waterproofing:

At least two layers of Multi-Tight 2K are applied in general. Subsequent coats are applied as soon as the last layer can be worked over without being damaged. The minimum application rates and total thickness of the layers for the individual loads are to be observed and checked in the fresh state.

The prescribed layer thickness is applied in a filling or spraying procedure.

If a layer of reinforcement is required, Remmers Reinforcement Fabric 2.5/100, Art. No. 4176, is worked into the first layer.

■ Horizontal surface waterproofing:

When waterproofing against ground damp and non-standing seepage water, the floor slab is primed as described above for vertical surfaces (avoid pools). Apply two uniform layers of Multi-Tight 2K, pore-free. After the waterproofing has thoroughly dried, two layers of polyethylene sheet are laid before the screed is placed for protection and as a parting plane. Waterproofing against standing seepage water and water pressure is executed on the reinforced sub-layer of concrete beneath the floor slab. Basis silicification treatment is carried out first. When waterproofing in a bond, Multi-Tight 2K is led up to the upper edge of the floor or to the horizontal barrier in the walls.

Pipes passing through walls

For ground damp and non-standing seepage water, pipes passing through walls are waterproofed flexibly with Multi-Tight 2K, in a cove form < 10 mm around the pipes. Roughen plastic pipes with sandpaper. Clean metal pipes, sand if necessary and waterproof with Multi-Tight 2K.

In case of moisture, a cemented flange or loose/fixed flange is integrated into the waterproofing

around pipes passing through walls.

A construction with a loose/fixed flange is used for standing seepage water. Remmers Pipe Flange (Art. No. 4349-4351) can be used for all loads.

Subsequent external waterproofing

Thoroughly clean the exposed substrate. Remove all loose parts, friable joints and hollow render. Renew with Remmers Undercoat Render (Art. NO. 0401). The properly prepared mineral substrate is then waterproofed as described for waterproofing new buildings. A scratch coat of Multi-Tight 2K is applied to existing dry and tightly adhering bitumen based waterproofing. As soon as the scratch coat has sufficiently dried and will not be damaged when worked over, two layers of Multi-Tight 2K are applied in the required layer thickness.

Protection/drainage layers

The thoroughly dry waterproofing must be protected from mechanical damage. To protect the waterproofing system, we recommend Remmers DS System Protection (Art. No. 0823). DS System Protection meets the requirements for filling protection in DIN 18195-10 and the Thick Coating Guideline as well as the vertical part of a drainage system according to DIN 4095. Materials that exert a point or line load on the waterproofing may not be used.

Use as a mineral, crack-bridging waterproofing grout (MWG)

The first coat of Multi-Tight 2K is applied with a brush or in a filling procedure. Subsequent working operations are carried out as soon as the first layer has sufficiently dried and will not be damaged when worked over.

■ Waterproofing joints:

Corner and connection joints in permanently wet areas are bridged using the Remmers Water Stop System VF 120. 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.

Directions

Multi-Tight 2K is packaged in the proper mixing ratio (dry mortar and liquid component).

The liquid component is made ready first. Then the powder component is added. Mix until a uniform consistency for brushing or applying with a filling knife has been achieved. Mixing time is approx. 3 minutes. There should be no lumps of dry powder. Small quantities can be mixed in a **ratio of 1.3 parts by weight powder : 1 part by weight liquid.**

Mixing equipment:

Use a drill with a mixing paddle or the small anchor mixing tool (Art. No. 4248).

No extra water should be added nor should the mixing ratio be changed. The following working operations are carried out in a brushing or filling procedure as described under use.

When working, Multi-Tight 2K can be applied in a grout, filling or spraying procedure in several layers.

The second layer and, if required, a third layer is applied as soon as the existing layer will not be damaged when worked over. To ensure that the waterproofing dries stress-free, do not apply more than 3.6 kg/m² (corresponds to a 3 mm wet layer).

We recommend the use of a 2 mm layer thickness trowel. The resulting dry layer thickness = 1.6 mm with an application rate of 2.4 kg/m² per application.

When mixing the material, small amounts of ammonium may be released. Ensure sufficient ventilations or mix outdoors!

■ Rendering

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. Then apply Remmers Restoration Render.

Notes

Do not use if the temperature of the air, substrate and building material is below + 5 °C or above 30 °C. The characteristic data given for the product were determined under laboratory conditions at 20 °C and 65 % relative humidity.

Do not use in direct sunlight; observe the rules for the application of render and work in the morning or evening hours.

The waterproofing is sensitive to rain and frost in the fresh state. When waterproofing under elevated piles, additional measures in regard to load distribution must be taken. Observe DIN 18195, the latest guidelines for planning and executing polymer modified bitumen thick coatings (PMB) or mineral waterproofing grouts (MWG) for waterproofing building elements with ground contact issued by Deutsche Bauchemie and other valid Technical Data Sheets for the products that are a part of the system.

Tools, cleaning

Small anchor mixing tool (Art. No. 4248) with an adjustable drill (1000 watt and 700-900 rpm), smoothing trowel, smoothing float, filling knife, 2 mm layer thickness trowel, tongue trowel, spraying equipment. As long as the waterproofing material has not yet dried, tools can be cleaned with water.

Packaging, application rate, shelf-life

Packaging:

25 kg combination container with the polymer and powder components packaged in the proper mixing ratio (the powder is in the container).

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

Priming:

0.1 kg/m² Kiesol or Kiesol red

Multi-Tight 2K:

1.5 kg/m² corresponding to approx. 1 mm dry layer thickness

Layer thicknesses and application rates for use as a crack-bridging MWG:

Load group	Layer thickness (mm)	Application rate (kg/m ²)
Ground damp	> 2.0	> 3.0
Non-standing seepage water, seepage water	> 2.0	> 3.0
Water reservoirs with a water depth < 5 m	> 3.2	> 4.8

Layer thicknesses and application rates for use as a PMB:

Load group	Dry layer thickness (mm)	Application rate (kg/m ²)
Ground damp, non-standing seepage water, moisture	> 3	> 4.5

Standing seepage water and exterior water pressure	> 4	> 6
Scratch coat	-	> 1.5
Attachment cement for perimeter insulation	-	> 1.5

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

Applied by hand, application rates may increase by approx. 1 kg/m².

Shelf-life:

12 months in unopened, original containers stored frost-free, dry and protected from strong heat.

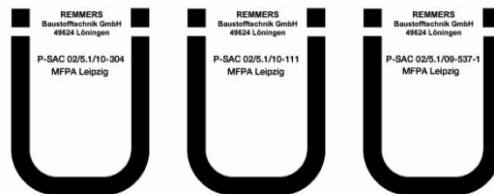
Safety, ecology, disposal

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

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

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