nexler® new generation of waterproofing

NEXLER AQUAMINERAL 2K Ultra

Two-component ultra flexible sealing micro-mortar

DANE TECHNICZNE

Ingredients - liquid component (component A) - powder component (component B)	aqueous plastic dispersion modified cement compound
Mixing ratio	3 : 5 (liquid component : powder component)
Time of suitability for use after mixing the ingredients	60 mins
Maximum thickness of the applied layer	1 - 2 mm
Number of layers	min. 2
Time interval between applying individual layers	approx. 3 - 4 h
Initial tensile adhesion strength	≥ 0,5 N/mm²
Water tightness	no penetration
Crack bridging ability • under standard conditions • at low temperature (-5°C) • at very low temperature (-20°C)	 4,00 ± 0,10 mm 3,75 ± 0,21 mm 2,59 ± 0,31 mm
Durability of initial tensile adhesion against climate/heat ageing action: • tensile adhesion strength after heat ageing	 ≥ 0,5 N/mm²
Durability of initial tensile adhesion against water/humidity action: • tensile adhesion strength after water contact	 ≥ 0,5 N/mm²
Durability of initial tensile adhesion against contact with lime water • tensile adhesion strength after contact with lime water	 ≥ 0,5 N/mm²
Durability of initial tensile adhesion against freeze and freeze-thaw cycles • tensile adhesion strength after freeze-thaw cycle	 ≥ 0,5 N/mm²
Permeability to CO_2	> 50 m
Water vapour permeability	Class II (5 m ≤ s_D ≤ 50 m)
Capillary absorption and permeability to water	< 0,1 kg/m² × $h^{0,5}$
Adhesion strength by pull off test	≥ 0,8 (0,5)[a] N/mm²
Water vapour permeability defined by the thickness of an air layer S_d	5,89 ± 0,47 m
Resistance to pressurised water	0,5 MPa
Diffusion coefficient of chloride ions	2,63 · 10^{-12} m²/s
Resistance to salting out of sulphates from groundwater	no salting out
Chemical resistance to:	solution with pH ~5; 0.1% phenol solution; aqueous solution with NH_4^+ ion content ~60 mg/l; aqueous solution with SO_4^{2-} ion content ~3000 mg/l; pool water
Permeation of diesel under capillary rise	no permeation
Permeation of petrol under capillary rise	no permeation
Permissible surface loading: - with rain - with pedestrian traffic - wodą pod ciśnieniem	after approx.: - 12 h - 24 h - 3 days
Bonding of ceramic cladding	after approx. 24 h
Backfilling the excavation	after approx. 3 days
Consumption: - per a 1 mm layer - damp-proof insulation - waterproof insulation (water not exerting pressure) - waterproof insulation (pressurised water)	 approx. 1,5 kg/m² thickness of a bound coating 2 mm: 3,0 kg/m² thickness of a bound coating 2,5 mm: 3,75 kg/m² thickness of a bound coating 3 mm: 4,5 kg/m²
Substrate and ambient temperature during application and binding	from +8°C to +30°C
Reference documents	EN 14891:2012; EN 14891:2012/AC:2012; EN 1504-2:2004

[a] The value in brackets is the lowest accepted value of any reading.

PROPERTIES

- Fiber-reinforced
- Flexible
- Microcrack-bridging even at very low temperature
- Resistant to the impact of water under a pressure of a 50 m water column
- Resistant to aggressive chemical solutions, petrol and diesel
- Resistant to impact of domestic wastewater and pool water
- Low water vapour diffusion resistance (allows water to evaporate from a dampened structure)
- Increased resistance to UV
- Inhibits the carbonation of concrete
- Counteracts the salting out of sulphate salts
- Solvent-free
- It has a Hygienic Certificate approving it to be in contact with drinking water

RESISTANT TO AGGRESSIVE SOLUTIONS | RESISTANT TO IMPACT OF A 50 M WATER COLUMN | MICROCRACK-BRIDGING

APPLICATION

- Waterproofing of terraces and balconies
- Damp-proof insulation and waterproofing of underground elements of buildings and structures in old and new buildings
- Sealing of the plinth area of a building
- Sealing of:
  - Baths and swimming pools
  - Waste water tanks
  - Domestic water tanks
  - Liquid manure tanks
  - Landfill sites
  - Car wash facilities
- Sealing coatings under ceramic tiles

FOR INDOOR AND OUTDOOR USE | VERTICAL HORIZONTAL | SPRAY EQUIPMENT | BRUSH

PACKAGING

Poland

- Set: 40 kg (bag 25 kg + liquid 15 kg)
- Quantity per pallet:
  - 40 kg - 12 sets

Export

- Set: 40 kg (bag 25 kg + liquid 15 kg)
- Quantity per pallet:
  - 40 kg - 12 sets

METHOD OF USE

- **CONDITIONS OF USE**

The temperature of the substrate and air during the works should be from +8°C to +30°C.

Works should not be carried out during precipitation and strong sunlight.

- **SUBSTRATE PREPARATION**

Suitable substrates are: concrete, screeds, cement and cement-lime plasters, gypsum plaster boards, well jointed masonry, OSB. Do not apply to concrete sealed with crystallising mortars.

The substrate intended for product application must be clean, load-bearing, even, porous and seasoned. The substrate must not be frozen, frosty, stagnant water must not occur. The substrate should be cleaned mechanically, dust, any loose layers, sharp protruding edges and impurities that worsen adhesion should be removed. If there are cavities, honeycombing, gravel pockets and other unevenness in the substrate, it should be repaired, filled with suitable mortars from the NEXLER RENOBUD R series.

Special attention should be paid to the preparation of the substrate at the joints of elements (corners, joints of vertical and horizontal surfaces). Embed a sealing tape in all corners, e.g. sealing tape 120/120 or make a facet (rounding) with a radius of approx. 5 cm with a NEXLER RENOBUD R 103 mortar.

Immediately prior to application, the prepared mineral substrate should be slightly moistened, avoiding water stagnation. Substrates with a regular absorbency, dust-free do not require priming. Highly absorbent substrates and those containing gypsum require priming with NEXLER Gruntofol. OSB should be sanded, dedusted and should not be moistened before applying the material.

- **PRODUCT PREPARATION**

AQUAMINERAL 2K Ultra is supplied in two separate packages. Pour the powder component into the liquid component and stir for about 2 minutes until a homogeneous mass without lumps is obtained. After the maturing time of 5 minutes, mix the material again.

Depending on the prevailing atmospheric conditions and the absorbency of the substrate, water in an amount of up to 3% of product weight can be added. The addition of water allows to obtain the right consistency related to the type of application. The mixed, ready-to-use material should be used within 1 hour. The matured material cannot be stirred and processed again.

- **APPLICATION METHOD**

AQUAMINERAL 2K Ultra Ultra can be applied with a brush, trowel or spray equipment.

In order to close the pores in the substrate, it is necessary to rub in a first, thin layer with a brush. Before applying each successive layer (between applying successive layers), maintain a technological break of 3 - 4 hours for the layer to dry. The recommended application thickness per layer is 1 mm (no thicker than 2 mm).

After approx. 24 hours, ceramic cladding can be bonded to the dried compound using mineral adhesives of class C2.

During setting, the coating should be protected from precipitation, frost, overly rapid evaporation of water and large temperature differences for approx. 12 hours.

- **CONTROL OF PERFORMANCE**

Thickness of a layer should be checked by material consumption control on a dedicated surface. In addition, it is recommended to measure the thickness of the freshly applied sealing layer with special inspection plates. The measurement area should be filled with putty immediately.

After it has dried, a properly made coating should be a uniform, clean coating, without flakes and other defects. The coating should adhere closely to the substrate.

Particular attention should be paid to corners and areas where plumbing and other components pass through partitions – these need to be assessed for proper embedding of tapes, corners and cuffs.

The occurrence of colour variations or possible discolouration on the surface of the coating is related to the varying humidity of the air and substrate and to the varying thickness of the coating. This does not indicate a defect in the product and does not affect the quality of the applied layer.

TOOLS AND TOOL CLEANING

Slow speed stirrer, brush, masonry brush, steel trowel, spray equipment.

For spray application, we recommend using a spraying unit, e.g. Inotec InoBeam M8.

Wash tools with water during work and after their completion, and wipe dry. If the product dries, clean the tools mechanically. The bound material is difficult to remove.

Clean the spray equipment immediately after work, according to the manufacturer's instructions.

STORAGE AND TRANSPORT

The shelf life of the product is 12 months from production date.
Store in dry and cool rooms at temp. above +5°C, in tightly sealed, original packaging. Protect the material from water and moisture. The product is sensitive to negative temperatures.

NOTES

Works should be carried out in accordance with technical conditions, manufacturer's instructions, health and safety standards and regulations.
For information on how to deal with symptoms of disease, allergies or irritation of the skin or eyes, please refer to the Safety Data Sheet (www.nexler.com).
The remaining content of the product and container should be handed over to authorized companies.

GENERAL RECOMMENDATIONS

Technical data and information on the method of use are given for a temperature of 23°C ± 2°C and a relative air humidity of 55%. In other conditions, the setting (drying) time may change significantly.
The consumption of the product given in this sheet depends on the preparation of the substrate.

SAFETY INFORMATION

Component A: May cause an allergic skin reaction. If medical advice is needed, have product container or label at hand. Keep out of reach of children. Wash hands and exposed parts of the body thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Dispose of contents/container to according to the instructions of the manufacturer or person authorized to dispose of waste.

Component B: Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. If medical advice is needed, have product container or label at hand. Keep out of reach of children. Wash hands and exposed parts of the body thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Dispose of contents/container to according to the instructions of the manufacturer or person authorized to dispose of waste.

IMPORTANT INFORMATION

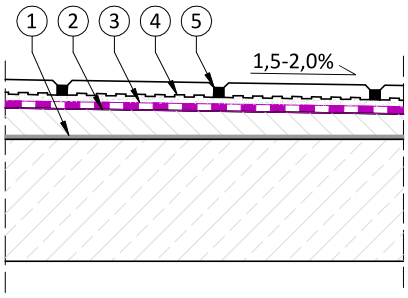
Please refer to the detailed conditions of use of the product before use.
We guarantee the quality of our materials as part of our terms of sale and delivery.
For buildings with special requirements that are not covered by this manual, we provide our Customers with our own professional advisory service.
The manufacturer has no influence on the improper use of the material, its use for other purposes or under conditions other than those described above. The guarantee only covers the quality of the delivered product. The correct and therefore effective use of the product is not subject to our control.
Neither the manufacturer nor his authorized representative may be held liable for any loss incurred as a result of improper use or storage of the product.
Employees of the company are authorized to provide technical information only and solely in accordance with this technical data sheet. Information other than that contained in this sheet should be confirmed in writing.
If you have any doubts, consult the manufacturer.
Once we have issued a new technical data sheet, this manual is no longer valid.

CONTACT DETAILS

NEXLER sp. z o.o.
Łużycka 6, 81-537 Gdynia, Poland
tel.: +48 58 712 94 44
www.nexler.com
e-mail: dt@nexler.com

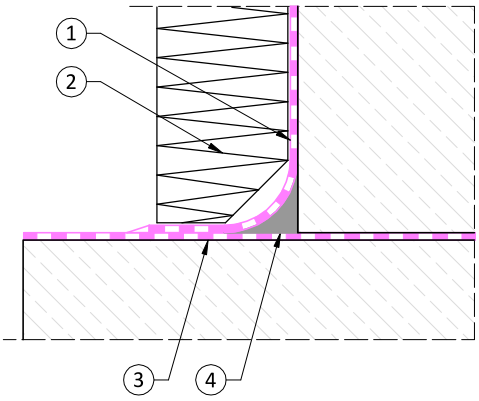
DETAILS

A balcony finished with ceramic tiles



1. Bonding layer – NEXLER RENOBUD R 102
2. Sloping (profiling) layer – NEXLER RENOBUD R 103 / R 105
3. Waterproofing – **NEXLER AQUAMINERAL 2K Ultra**
4. Adhesive mortar C2-S1
5. Ceramic tile, non-absorbent, frost resistant, jointed with elastic grout CG2 WA

Detail of the joint between foundation wall and footing



1. Vertical waterproofing – **NEXLER AQUAMINERAL 2K Ultra**
2. Thermal insulation – XPS or EPS boards bonded with NEXLER BITFLEX 1KP
3. Horizontal waterproofing – NEXLER AQUAMINERAL 1K Ultra
4. Sloping (profiling) layer NEXLER RENOBUD R 103