

Properties

ATLAS ROKER U is produced as a dry mixture of the highest quality cementitious binder, aggregates, polymer dispersions and modifying agents.

Very high adhesion - due to its increased polymer dispersion content, the adhesive exhibits high adhesion to mineral and ceramic substrates and to mineral wool boards. This parameter is also favourably influenced by the varied, tight bulk pile of the aggregate mixture. The mortar adheres strongly even to difficult substrates, e.g. paint-coated surfaces with good adhesion to the substrate.

High elasticity - the increased dispersion content increases the elasticity of the mortar, which perfectly compensates for the stresses resulting from thermal and service interactions on the layers of the system.

Increased resistance to the formation of cracks and scratches - thanks to the structural fibre reinforcement, the mortar has increased resistance to:

- formation of micro-scratches in the initial setting stage,
- the formation of cracks during the life of the system.

Highly vapour-permeable - does not restrict the flow of water vapour through the insulated envelope, which is particularly important when using mineral wool.

Purpose

In ETICS systems:

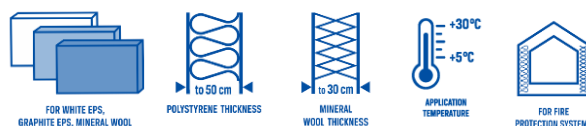
- for bonding mineral wool insulation boards up to 30 cm thick,
- for the bonding of EPS (white and graphite) thermal insulation boards up to 50 cm thick,
- for making a reinforced layer on them.

It is recommended for insulation work in passive and energy-saving construction and energy-efficient buildings.

ATLAS ROKER U

general-purpose adhesive mortar for thermal insulation fixing and mesh embedding

- vapour-permeable
- fibre-reinforced
- increased resistance to cracks and scratches
- recommended for façade systems and garage systems with high acoustic insulation



FUNCTION IN THE INSULATION SYSTEM

fixing of thermal insulation	+
implementation of the reinforced layer	+

TYPE OF INSULATION SYSTEM

traditional system (finished with thin-coat plaster)	+
garage system (insulation of ceilings on the outside)	+

TYPES OF THERMAL INSULATION BOARDS

EPS boards - white polystyrene	+
EPS boards - graphite polystyrene	+
mineral wool boards with a structured fibre structure (lamella)	+
mineral wool boards with unstructured fibre structure (façade)	+

TYPES OF FACILITIES

housing construction	+
public, educational, office, healthcare, sports facilities	+
commercial and service construction	+
industrial construction	+
industrial warehouses	+
traffic construction	+
farm and livestock buildings	+
underground garages	+
tall buildings >25 m	+
passive construction	+
energy-efficient construction	+

SUBSTRATE TYPE	
cellular concrete walls	+
brick or silicate block walls	+
brick or hollow brick walls	+
concrete block walls	+
stone walls	+
site-made concrete walls	+
precast concrete walls	+
cement and cement-lime plasters	+
walls covered with highly adherent coatings of paint (each time requires an adhesion assessment)	+
ceilings on the side of the ceilings, under heated rooms	+

Technical data

Bulk density (dry mix)	approx. 1.43 kg/dm ³
Mixing ratio: water / dry mix	0.22÷0.24 l / 1 kg 5.50÷6.00 l / 25 kg
Min./max. thickness of reinforced layer	4 mm / 6 mm
Application temperature (substrate and ambient)	from +5 °C to +30 °C
Maturation time*	approx. 5 minutes
Pot life*	approx. 2 hours
Open time*	min. 30 minutes
Water absorption after 24 hours	< 0.5 kg/m ²
Adhesion to concrete	≥ 0,25 MPa
Adhesion to thermal insulation	≥ 0,08 MPa
Compressive strength according to EN 1015-11:2001+A1:2007	CS category IV (> 20 N/mm ²)
Bending strength according to EN 1015-11:2001+A1:2007	> 5,5 kN/mm ²
Reaction to fire (in ATLAS ROKER system with mineral and silicate plasters)	Class A2-s2,d0
Reaction to fire (in the system with acrylic and silicone plasters)	Class B-s1,d0

*) The values given in the table are recommended for application conditions of approx. 20 °C and 55 % humidity.

Technical requirements

ATLAS ROKER U is a component of product sets for thermal insulation systems:

Name of the system	National Technical Assessment
ATLAS ROKER G	ITB-KOT-2018/0583 Issue 1
ATLAS ROKER	ITB-KOT-2021/1919 Issue 2
ATLAS ROKER EPS	ITB-KOT-2020/1188 Issue 1
ATLAS ETICS	ITB-KOT-2020/1616 Issue 3

Bonding of thermal insulation

Preparation of the substrate for the boards:

The substrate should be:

unfrozen and dry,

stable - sufficiently load-bearing, resistant to deformation, free of substances that reduce adhesion and seasoned,

even - larger irregularities should be filled with mortar:

- ATLAS ZW 330,

- ATLAS PLASTERING MORTAR,

cleaned - from layers that could weaken the adhesion of the mortar, especially from dust, dirt, lime, oil, grease, wax, paint residues,

primed - apply primer to substrates that are excessively absorbent or unevenly saturated (e.g. in the case of previous local repairs); poor cement and cement-lime plaster, as well as masonry made from cellular concrete, silicate blocks or cinder blocks also require priming.

Do the priming with one of the emulsions:

- ATLAS GRUNT NKP (ready to use - without dilution),

- ATLAS UNI-GRUNT or ATLAS UNI-GRUNT COLOUR,

- ATLAS UNI-GRUNT ULTRA.

Before the boards are glued, the plinth trim, which is the lower finish of the insulation, must be fixed and levelled.

Specific indications for the preparation of the substrate, depending on its type.

Substrate type	Procedure
"Dull" plasters	absolutely remove
Paint coatings with low adhesion and other impurities that weaken the adhesion of the mortar to the substrate	remove mechanically, e.g. by hydrodynamic washing
Facades with microbial infestation on the surface (mould decay fungi, algae, lichen)	Clean the surface mechanically, then apply ATLAS MYKOS PLUS.
Buildings built in large-panel technology	In addition to assessing the condition of the substrate, the condition of the inter-plate joints should be checked. Putty from joints that may react chemically with the thermal insulation should be removed. In structures built with external prefabricated sandwich boards, the original condition of the texture layer fixing should be technically assessed. If necessary, reinforce this joint by additional anchoring prior to insulation work. The assessment and technical design in this area should be carried out by a person with structural competence.

Board fixing

Preparation of the adhesive

Pour the material from the bag into a vessel with a measured amount of water (proportions given in the Technical Data) and mix with a slow-speed mixer with a mortar mixer until a uniform consistency is obtained. Set the mixed adhesive aside for 5 minutes and mix again. The adhesive thus prepared should be used within approximately 2 hours.

Bonding mineral wool boards

The surface of the boards should be thinly mudded with mortar, then the 'proper layer' should be applied and dragged with a 10 x 10 mm toothed trowel.

Stick the insulation boards in a staggered pattern of vertical joints. Immediately after the adhesive mortar has been applied, the board should be pressed into position. Fastening with mechanical fasteners can be carried out at the earliest 24 hours after the boards have been fixed. Use galvanised metal dowels in accordance with the thermal insulation design, min. 4 pcs/m².

Bonding polystyrene boards

The adhesive mortar should be applied to the inside of the board using the "strip and point" method. The width of the perimeter prism, laid along the edge of the board, should be at least 3 cm. The remaining surface should be evenly covered with 6÷8 cakes of min. 8 cm. In total, you should put enough mass to cover at least 40% of the whole panel surface (after pressing the panel to the base - at least 60%) to ensure that the panel is firmly fixed to the wall. The adhesive mortar is only applied to the surface of the insulation boards, never to the substrate. It is recommended that the mortar thickness under the panel after pressing should not exceed 10 mm. With even and smooth substrates, it is permissible to spread the mortar evenly with a notched trowel over the entire surface of the board. The size of the trowel teeth should be no less than 10 x 10 mm.

Stick the insulation boards in a staggered pattern of vertical joints. Immediately after the adhesive mortar has been applied, apply the boards to the substrate and then tap them into position using a patch. Fastening with mechanical fasteners may be commenced at the earliest one day after the boards have been fixed. For additional fixing, plastic or steel studs should be used in accordance with the thermal insulation design, min. 4 pcs/m².

Reinforced layer

Preparation of the adhesive

Pour the material from the bag into a vessel with a measured amount of water (proportions given in the Technical Data) and mix with a slow-speed mixer with a mortar mixer until a uniform consistency is obtained. Set the mixed adhesive aside for 5 minutes and mix again. The adhesive thus prepared should be used within approximately 2 hours.

Preparation of mineral wool boards for the reinforcement layer

The surface of the boards should be frost-free, even, clean and stable.

Reinforced layer on mineral wool boards

The reinforced layer can be applied no earlier than three days after the boards have been glued. The reinforced layer consists of a reinforcing mesh made of glass fibre embedded in adhesive mortar. Apply a layer of mortar to the fixed boards in the following manner 2/3 of the final quantity of mortar and spread it evenly over the surface with a notched trowel. Sink a taut strip of mesh into the mortar. Then apply the remaining 1/3 of the mortar quantity and smooth the surface thoroughly. Any remaining irregularities after the mortar has dried must be sanded down, as they may prevent the plaster from working properly.

To avoid scratches at the corners of the openings, additional mesh strips of at least 20 x 35 cm should be glued in at an angle of 45 degrees. 20 x 35 cm. The reinforcements should be placed under the actual reinforced layer.

Preparation of polystyrene boards for the reinforced layer

The surface of the boards should be frost-free, even, clean, stable and dust-free before the reinforcement layer is applied to them. The boards should be sanded and dusted off before the reinforcement layer is applied.

Reinforced layer on polystyrene boards

The reinforced layer can be applied no earlier than three days after the boards have been glued. The reinforced layer consists of a reinforcing mesh made of glass fibre embedded in adhesive mortar.

The reinforced layer is applied in one operation by spreading the mortar evenly with a trowel (e.g. with a toothed trowel of tooth size 6-10 mm) and then spreading the reinforcing mesh and sinking it with a trowel, while filling it in smoothly. It is important that the reinforcing mesh is invisible and completely embedded in the adhesive. It is important that the mesh is invisible and completely embedded in the adhesive. 10 cm.

Any remaining unevenness after the mortar has dried must be sanded down, as it may prevent the plaster from working properly. To avoid scratches at the corners of the openings, additional mesh strips of at least 20 x 35 cm should be glued in at an angle of 45 degrees. 20 x 35 cm. The reinforcements should be placed under the actual reinforced layer.

Finishing work

Finishing work

Plastering can be started when the mortar has dried (approx. 3 days) and when weather conditions correspond to the requirements indicated in the Technical Data Sheets for plasters.

Consumption

The exact unit consumption of the material depends on the parameters of the substrate (e.g. the degree of evenness) and on the panel bonding technology adopted.

Bonding of mineral wool boards: approx. 4.5-5.5 kg/m².

Bonding of polystyrene boards: 4.0 to 5.0 kg/m².

Reinforcement layer on mineral wool boards: approx. 5.5-6.5 kg/m².

Reinforced layer on polystyrene boards: 3.0 to 3.5 kg/m².

Packaging

25 kg paper bags.

Safety information

Safety information is given on the product packaging and in the Safety Data Sheet, available at www.atlas.com.pl.

Storage and transport

Information on storage and transport is given on the product packaging and in the Safety Data Sheet, available at www.atlas.com.pl.

The shelf life of the product (best before use) is 12 months from the production date on the packaging.

Important additional information

Do not stick heated graphite polystyrene. Do not allow graphite polystyrene to become hot during installation or during the initial setting of the adhesive. If the graphite polystyrene foam is heated at any of these stages, it may result in the polystyrene foam becoming detached from the adhesive.

It is necessary to use covers on scaffolding during the works. Work must not be carried out during snow or rainfall or in strong winds.

If it is necessary to fix Styrofoam boards on weak substrates with a bearing capacity that is difficult to determine (e.g. unstable, dusty, difficult to clean), an adhesion test is recommended. This consists of sticking polystyrene cubes of 10x10x10 cm in characteristic (important, representative) areas of the façade and checking the joint:

- after 3 days under normal conditions,
- after 5 days when the temperature is below 10 °C and the humidity is above 80 %.

The strength of the substrate can be considered sufficient if the polystyrene foam is torn off during detachment by hand. If the cube is torn off together with the mortar and substrate layer then the substrate is not sufficiently load-bearing. Further treatment in such a case, e.g. determining how to remove the weak layer, should be described in the technical design of the insulation.

Clean the tools with clean water, directly after use. Difficult to remove residues of already set mortar are washed off with ATLAS CEMENT AWAY.

The information contained in the Technical Data Sheet is a basic guide to the use of the product and does not exempt from the obligation to carry out the work in accordance with the rules of the art of construction and safety regulations. With the issue of this Technical Data Sheet, all previous ones are no longer valid. Documents accompanying the product are available at www.atlas.com.pl.

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Update date: 2023-03-30