



ATLAS HOTER U2-B

white adhesive mortar for polystyrene boards fixing and mesh embedding

- gel technology
- very high adhesion
- fibre-reinforced
- white, primerless
- under dark, intense colours with an HBW > 15 %.
- for use in high temperatures (up to +35 °C)



TWO IN ONE



FROST AND WATERPROOF



FOR EXTERIOR USE



MANUAL / MACHINE APPLICATION

Unique gel technology

The formulation of ATLAS HOTER U2-B adhesive uses innovative silicate gel technology. Silicate gel has an exceptional ability to absorb water. Accumulation of part of the batch water ensures full hydration of the cement, even at elevated temperatures. Thanks to the proper management of the water required to complete the setting process, the gel adhesive guarantees adhesion to substrates with varying degrees of absorption. The use of silicate gel technology offers the following advantages:

- the possibility of bonding different types of thermal insulation boards,
- secure fastening of thermal insulation on substrates exposed to high temperatures,
- excellent working parameters.

Properties

ATLAS HOTER U2-B is produced as a dry mixture of the highest quality cement binder, aggregates and specially selected modifying agents.

Can be used in high temperatures - allows insulation work to be carried out in the summer, at elevated temperatures (up to 35°C).

Possibility to use a wide colour palette, including dark and intensive colours - ATLAS SILICONE RENDER in systems with a reinforced layer made of ATLAS HOTER U2-B universal gel mortar can be used in an extended colour palette, with a light reflection coefficient HBW > 15%.

High bonding - due to its increased polymer content, it exhibits high adhesion to concrete EPS boards and phenolic foam (PF) boards.

General use - it is used for fixing thermal insulation boards and for making a reinforced layer.

Increased resistance to cracking - thanks to structural reinforcement with a mixture of polypropylene and cellulose fibres, 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.

Primerless - does not require an additional primer layer before applying the dispersion plaster (ATLAS CERPLAST primer should be used under mineral plasters).

Contains white cement - the use of white cement reduces the appearance of discolouration or translucence on the plaster, especially in white and pastel colours, and avoids additional painting.

Use

It is a component of external wall insulation systems. It is used for:

- for bonding thermal insulation boards made from EPS (white and graphite) polystyrene,
- for the permanent fixing of thermal insulation boards up to 25 cm thick.

It is recommended for insulation work in passive and energy-saving construction and energy-saving construction - it helps to achieve the tightness of the building envelope required in passive construction and permanently fixes thermal insulation boards up to 25 cm thick.

It can be used to provide insulation for newly constructed buildings and those undergoing thermal modernisation.

FUNCTION IN THE INSULATION SYSTEM	
fixing thermal insulation in thermal insulation systems	+
reinforcement layer in insulation systems	+

TYPES OF THERMAL INSULATION BOARDS

EPS boards - white polystyrene	+
EPS boards - graphite polystyrene	+
XPS boards - extruded polystyrene	use ATLAS XPS

TYPE OF INSULATION SYSTEM

traditional system (finished with thin-coat plaster)	+
renovation system (insulation of existing thermal insulation with polystyrene foam)	use ATLAS RENOTER System
ceramic system (finished with ceramic tiles)	use system ATLAS CERAMIK
garage system (insulation of ceilings on the outside)	use ATLAS ROKER G System

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	use ATLAS ROKER G SYSTEM
tall buildings > 25 m*	use the ATLAS ROKER SYSTEM
passive construction	+
energy-efficient construction	+

* buildings up to 11 storeys put into service before 1.4.1995 may be insulated with EPS

SUBSTRATE TYPE

cellular concrete masonry	+
brick or silicate block masonry	+
brick or hollow brick masonry	+
concrete block wall	+
stone wall	+
concrete walls on site	+
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	use ATLAS ROKER G SYSTEM

Technical data

Bulk density (dry mix)	approx. 1.36 g/cm ³
Mixing ratio water / dry mix	0.30±0.32 l / 1 kg 7.5±8.00 l / 25 kg
Min/max. thickness of reinforced layer	2 mm / 5 mm
Application temperature	from +10 °C to +35 °C
Maturation time*	approx. 5 minutes
Pot life*	approx. 4 hours
Open time*	approx. 30 minutes
Air-dry adhesion to concrete	≥ 0,25 MPa
Air-dry adhesion to polystyrene foam	≥ 0,08 MPa
Water absorption of the insulation system (reinforced layer)	
-after 1h	< 150 g/m ²
-after 24 hours	< 500 g/m ²

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

Technical requirements

ATLAS HOTER U2-B is covered by the National Technical Assessments of the Building Research Institute as a component of a set of products for thermal insulation systems:

Name of the system	Number of Technical Approval/National Technical Assessment
ATLAS ETICS PLUS	ITB-KOT-2018/0584 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 - priming with emulsion:

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

- ATLAS UNI-GRUNT ULTRA,

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

Priming should be carried out on substrates that are too absorbent or do not absorb uniformly (e.g. in the case of previous local repairs); weak cement and cement-lime plaster as well as masonry made of cellular concrete, silicate blocks or cinder blocks also require priming.

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

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

Substrate type	Procedure
"Deaf" plasters	absolutely remove
Paint coatings with low adhesion and other impurities that impair mortar adhesion 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 build 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 pre-fabricated sandwich boards, the original condition of the texture layer fixing should be technically assessed. If necessary, this joint should be reinforced by additional anchoring before the insulation work. The assessment and technical design in this respect should be carried out by a person with structural competence.

Preparation of the adhesive

Pour the material from the bag into a vessel with 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, after collecting the unmixed residue from the sides of the vessel with a trowel, mix again. The adhesive thus prepared should be used within approx. 4 hours.

Board fixing

The adhesive mortar should be applied to the back side 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 patches 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 properly 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.

Adhere 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. If additional fixing with mechanical fasteners is required, this can be done at the earliest 24 hours 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. If there is any doubt about the load-bearing capacity of the substrate, a pull-out test of the fasteners should be carried out.

Reinforced layer

Preparation of boards for 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 surface should be sanded and dusted off before a reinforced layer is applied to graphite boards.

Making a reinforced layer.

The reinforced layer can be applied no earlier than three days after the boards have been adhered. The reinforced layer consists of a reinforcing mesh made of glass fibre embedded in adhesive mortar. The reinforced layer is applied by spreading the mortar evenly with a and distribution of the mortar with a trowel (e.g. toothed trowel of 6-10 mm). 6-10 mm). The adhesive can also be applied mechanically with an aggregate, e.g. WAGNER PC 1030 (nozzle 6 mm, speed 6, pressure 6 bar). The reinforcing mesh should then be embedded in the freshly applied adhesive using a smoothing trowel, while filling the surface 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 overlap. Mesh embedding and levelling the reinforced layer should be done in one pass, without subsequent filling with adhesive.

Any remaining unevenness after the mortar has dried must be sanded down, as it may prevent the plaster from working properly. To avoid scratches in the corners of the openings, additional mesh strips of min. 20x35 cm. The reinforcements should be placed under the actual reinforced layer.

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 consumption of the material depends on the parameters of the substrate (e.g. the degree of evenness) and the tile bonding technology adopted.

Board bonding: 4.0 to 5.0 kg/m².

Reinforced layer: 3.0 to 4.0 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.

Shelf life (shelf life) of the product is 12 months from the date of production on the packaging

Important additional information

Do not adhere 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.

The mortar's parameters are fully utilised when it is used in conjunction with other elements of the ATLAS thermal insulation system.

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

If it is necessary to adhere 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 adhering 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 cubes should be adhered over the entire surface and the thickness of the adhesive should be approximately 1 cm.

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. The documents accompanying the product are available at www.atlas.com.pl.

The contents of the Technical Data Sheet and the designations and trade names used therein are the property of Atlas Ltd. Their unauthorised use will be sanctioned.

Update date: 2023-03-30