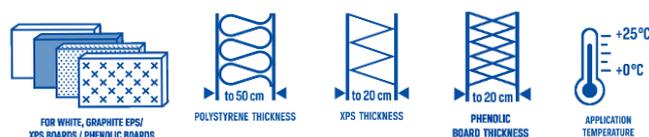


ATLAS STOPTER K-20

specialized adhesive mortar for thermal insulation and for mesh embedding

- recommended for application at low temperatures
- very high adhesion to substrates
- flexible, fibre-reinforced
- insulation of existing thermal insulation
- for insulation with ceramic tiles up to 4 m²



Properties

ATLAS STOPTER K-20 is produced as a dry mixture of the highest quality cement binder, aggregates and specially selected modifying agents.

It has very high adhesion - due to its increased polymer dispersion content, it exhibits high adhesion to mineral substrates and to EPS and XPS boards. This parameter is also favourably influenced by the varied, tight bulk density of the aggregate mixture. The mortar adheres strongly even to difficult substrates, e.g. paint-coated surfaces with good adhesion to the substrate.

Allows work to be carried out in a wide range of temperatures - not less than 0 °C during the work and not less than -5 °C after 8 hours after completion.

It has increased resistance to cracking - 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.

It is vapour-permeable.

Purpose

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

- for bonding thermal insulation boards made of EPS (white and graphite) polystyrene and providing a reinforced layer over them,
- for the permanent fixing of thermal insulation boards up to 25 cm thick.

ATLAS STOPTER K-20 is recommended as a reinforced layer under plasters on large surfaces designed in dark, intensive colours - it extends the possibilities of free shaping of façade colours, e.g. it allows lowering the required HBW coefficient even up to 10 %.

It is recommended for insulation work in passive and energy-efficient construction passive and energy-efficient building systems - helps achieve the building envelope airtightness required in passive construction.

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	+
Reinforced layer in thermal insulation systems under all ATLAS thin layer plasters	+

TYPES OF THERMAL INSULATION BOARDS	
EPS boards - white polystyrene	+
EPS boards - graphite polystyrene	+
XPS boards - extruded polystyrene	+
mineral wool boards with a structured fibre structure (lamella)	use the ATLAS ROKER system
mineral wool boards with unstructured fibre structure (façade)	use the ATLAS ROKER 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	+

SUBSTRATE TYPE	
cellular concrete masonry	+
brick or silicate block masonry	+
brick or hollow brick masonry	+
concrete block wall	+
stone wall	+
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	use ATLAS ROKER G system

TYPE OF INSULATION SYSTEM	
traditional system (finished with thin-coat plaster)	+
renovation system (insulation of existing thermal insulation)	+
ceramic system (finished with ceramic tiles)	+
garage system (insulation of ceilings on the outside)	use the system ATLAS ROKER G

Technical data

Bulk density (dry mix)	approx. 1.4 kg/dm ³
Mixing ratio water / dry mix	0.20±0.22 l / 1 kg 5.00±5.50 l / 25 kg
Min/max. thickness of reinforced layer	2 mm / 5 mm
Air-dry adhesion to concrete	≥ 0,25 MPa
Air-dry adhesion to polystyrene foam	≥ 0,08 MPa
Temperature of mortar preparation of the substrate and surroundings	0 °C to +25 °C
Maturation time	approx. 5 minutes
Pot life	approx. 4 hours
Open time	min. 25 minutes

The times indicated in the table are recommended for application conditions at approx. 20 °C and 50-60 % humidity.

Technical requirements

ATLAS STOPTER K-20 is a component of complex thermal insulation systems with plaster coatings:

Name of the system	European Technical Assessment Number
ATLAS	ETA 06/0081
ATLAS XPS	ETA 07/0316

ATLAS STOPTER K-20 is a component of product kits for the execution of thermal insulation systems:

Name of the system	Number of National Technical Assessment
ATLAS ETICS	ITB-KOT-2020/1616 Issue 3
ATLAS CERAMIK	ITB-KOT-2018/0385 Issue 4
ATLAS RENOTER	ITB-KOT-2021/2020 Issue 1

Tile bonding and reinforced layer

Preparation of the substrate for the boards:

The substrate should be:

unfrozen and dry,

stable - sufficiently load-bearing, resistant to deformation and seasoned,

even - larger irregularities should be filled with mortar:

- ATLAS ZW 330,
- WITH ATLAS PLASTER 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 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 starting to adhere the boards, the and level the plinth trim, which is the lower finish of the insulation.

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

Substrate type	Procedure
"Dullf" 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 (fungi, algae, lichen)	Clean the surface mechanically, then apply ATLAS MYKOS PLUS.
Buildings built in large-panel technology	In buildings built with external prefabricated sandwich boards, a technical assessment of the original condition of the texture layer fixing should be carried out. If necessary, reinforce this joint by additional anchoring prior to insulation work. The assessment and technical design in this respect should be carried out by a person with structural competence. In addition to the assessment of the condition of the substrate, the condition of the panel joints should be checked. Putty from joints that may react chemically with the thermal insulation should be removed.

Adhering the boards

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. The mixed adhesive should be set aside for 5 minutes and mixed again. The adhesive prepared in this way should be used within approximately 4 hours.

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 patches of min. 8 cm. In total, you should put enough mass to cover at least 40% of the plasterboard surface (after pressing the plasterboard to the base - at least 60%) to ensure that the plasterboard 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. On even and smooth substrates, it is permissible to spread the mortar evenly with a notched trowel over the entire surface of the panel. 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. 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. 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 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. The mixed adhesive should be set aside for 5 minutes and mixed again. The adhesive prepared in this way should be used within approximately 4 hours.

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 adhered. The reinforced layer consists of a reinforcing mesh made of glass fibre embedded in adhesive mortar.

The reinforced layer is made in one operation by applying the mortar evenly with a trowel (e.g. a toothed trowel with 6-10 mm tooth size) and then spreading the reinforcing mesh and sinking it with the trowel, while trowelling 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 irregularities after the mortar has dried must be sanded down, as they may prevent the plaster from being applied correctly.

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

Finishing work

The plastering can be started when the mortar has dried (approx. 3 days) and when atmospheric conditions correspond to the requirements indicated in the Technical Data Sheets for thin layer plasters. Before plastering, the reinforced layer should be covered with a primer appropriate for the selected plaster.

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.

Board bonding: 4.0 to 5.0 kg/m².

Reinforced layer: 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 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 the above stages, it may result in the adhesive becoming detached from the polystyrene foam.

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 polystyrene 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.

It consists in gluing in characteristic (important, representative) places of the façade, cubes of polystyrene foam with dimensions of 10x10x10 cm 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 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. How to proceed 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 this Technical Data Sheet is a basic guideline for the use of the product and does not release you 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. Up-to-date technical product documentation is 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