





## ADHESIVES FOR THERMAL INSULATION

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# ADHESIVES FOR THERMAL INSULATION

Proper installation of insulation layer depends on appropriate adhesive mortar selection. The main tasks of adhesives for thermal insulation are:

- **formation of durable bond between substrate and thermal insulation material**
- **protection of thermal insulation against mechanical damage**
- **formation of properly strong and even substrate for thin-coat rendering coat.**

Adhesives offered by ATLAS are characterised by high quality and wide range of options. We offer adhesives for thermal insulation fixing and base coat (reinforcing layer) application, both for polystyrene and mineral wool.

**ATLAS adhesives for thermal insulation can be divided into various groups.**

## ADHESIVE TYPE

- adhesive for thermal insulation fixing
- general-use adhesive for thermal insulation fixing and base coat application

## TYPES OF THERMAL INSULATION MATERIAL








(insulation characteristic resulting in adhesives parameters are mainly: absorptiveness, bonding, board mechanical deformability).

- elastified polystyrene EPS
- extruded polystyrene XPS
- façade mineral wool
- lamella wool

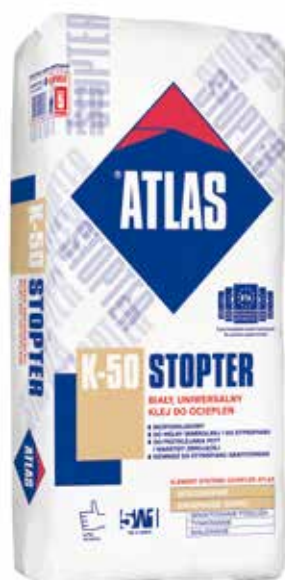
**In order to choose an adhesive meeting particular needs, one should answer some questions:**

- What type of insulation material is to be used?
- Will adhesive be used for insulation fixing or also for base coat application?
- Will insulation material be fixed upon walls or ceilings?
- What atmospheric conditions will there be during installation?
- What is the type of substrate beneath insulation?
- What is the designed height of insulation?

TABLE 10.1

PRODUCT							
	ATLAS STOPTER K-50	ATLAS STOPTER K-20/ AVAL KT 85	ATLAS STOPTER K-10	ATLAS HOTER U/ AVAL KT 55	ATLAS HOTER S/ AVAL KT 53	ATLAS ROKER W-20/ AVAL KT 190	ATLAS ROKER W-10
Reference document	AT-15-8512/2010	AT-15-3092/2013	AT-15-1857/2013	AT-15-6347/2014 AT-15-9090/2014	AT-15-6348/2014	AT-15-2927/2014	AT-15-7314/2011
TECHNICAL DATA							
Mixing ratio water/dry mix [l/kg]	5.0-5.5	5.0-5.5	5.0-5.50	5.0-5.50	5.0-5.50	5.5-6.25	5.5-6.25
Pot life [h]	4	4	3	4	3	2	4
Open time [min]	25	25	25	25	25	30	25
Bonding to polystyrene* [MPa]	≥ 0.1	≥ 0.08	≥ 0.08	≥ 0.08	≥ 0.08		
Bonding to mineral wool* [MPa]	≥ 0.08					≥ 0.08	≥ 0.08
Bonding to concrete* [MPa]	≥ 0.25	≥ 0.25	≥ 0.25	≥ 0.25	≥ 0.25	≥ 0.25	≥ 0.3
Consumption [kg/m <sup>2</sup> ] – boarding	polystyrene	4.0-5.0	4.0-5.0	4.0-5.0	4.0-5.0	4.5-5.5	4.5-5.5
	mineral wool	4.5-5.5					
Consumption [kg/m <sup>2</sup> ] – base coat	polystyrene	3.0-3.5	3.0-3.5	3.0-3.5		5.5-6.5	
	mineral wool	5.5-6.5					
Temperature of application [°C]	5-30	0-25	5-25	5-25	5-25	5-25	5-25
Colour of base coat	white	grey	grey	grey white	grey	grey	grey
ADHESIVE USE IN THE INSULATION SYSTEM							
Boarding	✓	✓	✓	✓	✓	✓	✓
Boarding and base coat	✓	✓		✓		✓	
TYPE OF INSULATION							
EPS	✓	✓	✓	✓	✓		
XPS		✓	✓	✓	✓		
Mineral wool	✓					✓	✓

\* in air-dry state



## ATLAS STOPTER K-50

### white general use adhesive for external wall insulation

- white
- no priming mass required
- for mineral wool and polystyrene
- for boards and base coat installation
- also for graphite polystyrene



### Five unique uses

**Installation of various types of thermal insulation boards as well as base coat application** – can be used with polystyrene (white, graphite, graphite-enhanced) and with mineral wool (façade and lamella). Perfect solution for projects requiring the use of various thermal insulation materials.

**Improved resistance to cracking** – reinforced with fiberglass, additionally white cement forms base coat stronger than the one offered by grey cement-based mortars.

**Does not require the use of priming masses beneath renders** – unique structure of set adhesive forms coating which thin-coat renders strongly bond to; white cement limits the risk of surface discolouration of renders, which can result from grey cement influence.

**Limited absorptiveness** – together with renders perfectly protects thermal insulation against water action.

### Use

Component of ATLAS ETICS and ATLAS RENOTER thermal insulation systems. For installation of thermal insulation boards and application of base coat of thermal insulation systems.

**Recommended for insulation of standard, passive and energy efficient buildings** – helps to reach the partition tightness required in passive housing, fixes insulation boards even 25 cm thick.

**Types of substrates** – concrete of any class, aerated concrete, cement and cement-lime plasters, sandstone, rough walls made of bricks, blocks, hollow blocks and other ceramic or silicate materials.

### Properties

**Highly flexible** – perfectly compensates stress resulting from thermal and operation loads.

**Very good bonding** – strongly bonds to difficult substrates, e.g. surfaces coated with strongly bonded paints.

**Water vapour permeable** – does not limit free transfer of water vapour through the insulated partition.

**Very good application parametres** – during mixing, application upon boards, mesh embedding, etc.

### Technical data

ATLAS STOPTER K-50 is manufactured as a dry mix of high quality cement binder, aggregates and modifiers, reinforced with fiberglass.

Bulk density (of dry mix)	approx. 1.40 kg/dm <sup>3</sup>
Mass bulk density (after mixing)	approx. 1.55 kg/dm <sup>3</sup>
Dry density (after setting)	approx. 1.40 kg/dm <sup>3</sup>
Mixing ratio (water/dry mix)	0.20 ÷ 0.22 l/1 kg 5.00 ÷ 5.50 l/25 kg
Min./max base coat thickness	
• on polystyrene	2 mm/ 5 mm
• on mineral wool	4 mm/ 6 mm
Bonding to concrete	min.0.25 MPa
Bonding to mineral wool	min.0.08 MPa
Bonding to polystyrene	min. 0.10 MPa
Mortar preparation temperature, substrate and ambient temperature during work	from +5°C to +30°C
Maturing time	approx. 5 minutes
Pot life	approx. 4 hours
Open time	min. 25 minutes

### Technical requirements

ATLAS STOPTER K-50 is listed in the following technical approvals for thermal insulation systems:

System name	Technical Approval No.	Certificate No.
ATLAS ETICS	AT-15-9090/2014	FPC No. ITB-0562/Z
ATLAS RENOTER	AT-15-8477/2010	FPC No. ITB-0456/Z

## Boards and base coat installation

### Substrate preparation for boarding

The substrate should be frost-free, stable, even and structurally sound, i.e. strong enough, free from layers which would impair the mortar bonding, in particular dust, dirt, lime, oil, grease, wax, remains of emulsion and oil paints. Prior to repair works substrate should be cleaned and, if excessively absorptive, primed with ATLAS UNI-GRUNT emulsion. Prime also weak cement, cement-lime plasters and rough walls made of cellular concrete or hollow cinder blocks. Major irregularities or cavities should be filled with ATLAS ZW 330 or ATLAS PLASTERING MIX.

### Boards preparation for base coat

The boards surface should be frost-free, even, clean, stable and dusted, if boards have been grinded since fixing. It is advisable to grind and dust graphite boards prior to base coat application.

### Mortar preparation

Pour the mortar from the bag into a clean container with the suitable amount of water (see Technical Data for ratio) and mix using a mixer with a drill until homogenous. Leave the mortar to rest for 5 minutes and remix. The mortar should be used up within approx. 4 hours.

### Boarding

Apply the mortar on the back side of a board with the "strip-point method", i.e. apply continuous circumferential bead (min. 3 cm wide) along the board edges and 6-8 patches (of diameter 8-12 cm) evenly distributed upon the board surface. In total, mass should coat min. 40% of the board surface (60% after pressing the board to substrate) and provide appropriate bonding between the board and the wall. Just after mortar application the board should be placed upon substrate and pressed onto expected place, so the mortar thickness beneath the board does not exceed 10 mm. In case of even and smooth substrates, it is acceptable to spread the mortar evenly with a notched trowel upon the whole board surface, so it forms layer 2-5 mm thick after fixing.

In case of mineral wool, form a contact coat by floating the board surface with a thin mortar coat, leave for initial setting and apply the mortar with the "strip-point method" then.

Fixing the boards with mechanical anchors can commence min. 1 day since the boards installation. Mechanical fixing of polystyrene boards, unless locally oppositely required, is optional and depends on building height and type. Fixing of mineral wool boards is obligatory, use fixings with galvanized pins, min. 8 pcs/m<sup>2</sup>.

### Base coat application on polystyrene boards

Base coat can be applied when adhesive mortar used for boards fixing sets appropriately and after additional mechanical fixing (after 3 days on average). Apply mortar upon fixed insulation, spread with a notched trowel and embed the fiberglass mesh. Embed the mesh with vertical strips and float smooth, so it's fully coated and does not contact polystyrene boards directly.

### Base coat application on mineral wool

Base coat can be applied not earlier than 3 days since the boards fixing. It consists of fiberglass reinforcing mesh embedded in the adhesive mortar coat. Apply thin mortar coat upon fixed boards. After initial setting, apply subsequent mortar coat with a smooth float (use 2/3 of final mortar amount) and spread uniformly with a notched trowel. Embed mesh strips – press them at some points into the mass and embed with a notched trowel then, so they're fully coated with mortar. Apply the remaining 1/3 of the mass and smooth the surface. Grind any irregularities as they can prevent correct application of renders.

### Finishing works

Rendering can commence when weather conditions meet the requirements listed in the technical data sheets of thin-coat renders, not earlier however than 3 days since the base coat installation.

## Consumption

The actual consumption depends on substrate parameters (e.g. evenness) and technology of boards installation.

Boarding – polystyrene boards: from 4.0 up to 5.0 kg/1 m<sup>2</sup>.

Base coat application: from 3.0 up to 3.5 kg/1 m<sup>2</sup>.

Boarding – mineral wool: from 4.5 up to 5.5 kg/1 m<sup>2</sup>.

Base coat application: from 5.5 up to 6.5 kg/1 m<sup>2</sup>.

## Important additional information

- Do not fix heated graphite polystyrene. Protect graphite polystyrene against heating up during installation and initial adhesive setting. Heating graphite polystyrene during any of these phases can result in the adhesive loosening.
- The mortar parameters are used to its full advantage only when applied in combination with other system components and according to the technology of system installation.
- Use scaffolding covers during work. Do not carry out installation during snowfall, rain and in strong wind.
- When fixing the boards onto poor substrates of hard to determine bearing capacity (e.g. unstable, dusty, hard to clean), it is advisable to conduct a test of bonding. It consists in fixing 8-10 cubes of insulating material (10x10 cm large) at various façade points and checking the bond after 3 days. The substrate strength can be assumed as acceptable when the cube breaks within when teared off. If the cube tears off with mortar or substrate layer, then the substrate bearing capacity is insufficient. In such case further procedure, e.g. technology of weak layer removal, should be described in the external insulation design.
- Tools must be cleaned with clean water directly after use. Difficult to remove residues of the set mortar can be removed with the ATLAS SZOP agent.
- Contains cement. May cause respiratory irritation. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Keep out of reach of children. Avoid breathing dust. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Follow the instructions of the Safety Data Sheet.
- The mortar must be transported and stored in tightly sealed bags, in dry conditions (most preferably on pallets). Protect against humidity. Shelf life in conditions as specified is 12 months from the production date shown on the packaging. Content of soluble chromium (VI) in ready-to-use mix - ≤ 0.0002%.

## Packaging

Paper bags: 25 kg

Pallet: 1,050 kg in 25 kg bags

*The above information constitutes basic guidelines for the application of the product and does not release the user from the obligation of carrying out works according to engineering principles and OHS regulations.*

*At the time of publication of this product data sheet all previous ones become void.*  
Date of update: 2015-03-03





Up to five  
European Technical Approvals  
for ATLAS insulation systems



## ATLAS STOPTER K-20

### 2 in 1 - adhesive mortar for polystyrene and XPS and for mesh embedding

- very good bonding
- reinforced with microfibres
- resistant to cracks and scratches
- can be used in low temperature (even from 0°C)
- also for graphite polystyrene



### Use

**2 in 1** – for installation of thermal insulation boards and application of base coat of thermal insulation systems.

**Component of thermal insulation systems** – element of composite thermal insulation systems, which have been given both European (ETA) and domestic (AT) technical approvals.

**Recommended for insulation of passive and energy efficient buildings** – helps to reach the partition tightness required in passive housing, fixes insulation boards even 25 cm thick.

**Installation of various types of polystyrene and extruded polystyrene boards** – including graphite, graphite-enhanced and elastified ones.

**Enables work within wide range of temperature** – from 0°C during application and down to -5°C within 8 hours since the installation.

**Types of substrates** – concrete of any class, aerated concrete, cement and cement-lime plasters, sandstone, rough walls made of bricks, blocks, hollow blocks and other ceramic or silicate materials.

### Properties

**Improved resistance to cracking** – reinforced with cellulose microfibres.

**Highly flexible** – perfectly compensates stress resulting from thermal and operation loads.

**Very good bonding** – strongly bonds to difficult substrates, e.g. surfaces coated with strongly bonded paints.

**Water vapour permeable** – does not limit free transfer of water vapour through the insulated partition.

### Technical data

ATLAS STOPTER K-20 is manufactured as a dry mix of high quality cement binder, aggregates and modifiers, reinforced with cellulose fibres.

Bulk density (of dry mix)	approx. 1.55 kg/dm <sup>3</sup>
Mass bulk density (after mixing)	approx. 1.60 kg/dm <sup>3</sup>
Dry density (after setting)	approx. 1.47 kg/dm <sup>3</sup>
Mixing ratio (water/dry mix)	0.20 ÷ 0.22 l/1 kg 5.00 ÷ 5.50 l/25 kg
Min./max base coat thickness	2 mm/ 5 mm
Bonding to concrete in air-dry state	≥ 0.25 MPa
Bonding to polystyrene in air-dry state	≥ 0.08 MPa
Mortar preparation temperature, substrate and ambient temperature during work	from 0°C to +25°C
Maturing time	approx. 5 minutes
Pot life	approx. 4 hours
Open time	min. 25 minutes

### Technical requirements

ATLAS STOPTER K-20 is listed in the following technical approvals for thermal insulation systems:

System name	Technical Approval No.	Certificate No.
ATLAS	ETA 06/0081	EC 1488-CPD-0021
ATLAS XPS	ETA 07/0316	EC 1488-CPD-0075
ATLAS ETICS	AT-15-9090/2014	FPC No. ITB-0562/Z
ATLAS RENOTER	AT-15-8477/2010 + Annex 1	FPC No. ITB-0456/Z
ATLAS CERAMIK	AT-15-8592/2011 + Annex 1	FPC No. ITB-0472/Z

The product has been given the National Standard Authority of Ireland (NSAI) Certificate no. 10/0347 and the British Board of Agrément (BBA) Certificate no. 13/5018.

The product has also been given the ITB Technical Approval AT-15-3092/2013. Certificate of Factory Production Control Certificate no. ITB-0563/Z. Domestic Declaration of Conformity 003-1 of 22.04.2013. The product has been given the Hygienic Certificate and the Radiation Hygiene Certificate.

## Boards and base coat installation

### Substrate preparation for boarding

The substrate should be frost-free, stable, even and structurally sound, i.e. strong enough, free from layers which would impair the mortar bonding, in particular dust, dirt, lime, oil, grease, wax, remains of emulsion and oil paints. Prior to repair works substrate should be cleaned and, if excessively absorptive, primed with ATLAS UNI-GRUNT emulsion. Prime also weak cement, cement-lime plasters and rough walls made of cellular concrete or hollow cinder blocks. Major irregularities or cavities should be filled with ATLAS ZW 330 or ATLAS PLASTERING MIX.

### Boards preparation for base coat

The boards surface should be frost-free, even, clean, stable and dusted, if boards have been grinded since fixing. It is advisable to grind and dust graphite boards prior to base coat application.

### Mortar preparation

Pour the mortar from the bag into a clean container with the suitable amount of water (see Technical Data for ratio) and mix using a mixer with a drill until homogenous. Leave the mortar to rest for 5 minutes and remix. The mortar should be used up within approx. 4 hours.

### Boarding

Apply the mortar on the back side of a board with the "strip-point method", i.e. apply continuous circumferential bead (min. 3 cm wide) along the board edges and 6-8 patches (of diameter 8-12 cm) evenly distributed upon the board surface. In total, mass should coat min. 40% of the board surface (60% after pressing the board to substrate) and provide appropriate bonding between the board and the wall. Just after mortar application the board should be placed upon substrate and pressed onto expected place, so the mortar thickness beneath the board does not exceed 10 mm. In case of even and smooth substrates, it is acceptable to spread the mortar evenly with a notched trowel upon the whole board surface, so it forms layer 2-5 mm thick after fixing.

### Base coat application

Base coat can be applied when adhesive mortar used for boards fixing sets appropriately and after additional mechanical fixing (after 3 days on average). Apply mortar upon fixed insulation, spread with a notched trowel and embed the fiberglass mesh. Embed the mesh with vertical strips and float smooth, so it's fully coated and does not contact polystyrene boards directly.

### Finishing works

Rendering can commence when weather conditions meet the requirements listed in the technical data sheets of thin-coat renders, not earlier however than 3 days since the base coat installation.

## Consumption

The actual consumption depends on substrate parameters (e.g. evenness) and technology of boards installation.

Boarding: from 4.0 up to 5.0 kg/1 m<sup>2</sup>.

Base coat application: from 3.0 up to 3.5 kg/1 m<sup>2</sup>.

## Important additional information

- Do not fix heated graphite polystyrene. Protect graphite polystyrene against heating up during installation and initial adhesive setting. Heating graphite polystyrene during any of these phases can result in the adhesive loosening.
- The mortar parameters are used to its full advantage only when applied in combination with other system components and according to the technology of system installation.
- Use scaffolding covers during work. Do not carry out installation during snowfall, rain and in strong wind.
- When fixing the boards onto poor substrates of hard to determine bearing capacity (e.g. unstable, dusty, hard to clean), it is advisable to conduct a test of bonding. It consists in fixing 8-10 polystyrene cubes (10x10 cm large) at various façade points and checking the bond after 3 days. The substrate strength can be assumed as acceptable when polystyrene cube breaks within when teared off. If the cube tears off with mortar or substrate layer, then the substrate bearing capacity is insufficient. In such case further procedure, e.g. technology of weak layer removal, should be described in the external insulation design.
- Tools must be cleaned with clean water directly after use. Difficult to remove residues of the set mortar can be removed with the ATLAS SZOP agent.
- Contains cement. May cause respiratory irritation. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Keep out of reach of children. Avoid breathing dust. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Follow the instructions of the Safety Data Sheet.
- The mortar must be transported and stored in tightly sealed bags, in dry conditions (most preferably on pallets). Protect against humidity. Shelf life in conditions as specified is 12 months from the production date shown on the packaging. Content of soluble chromium (VI) in ready-to-use mix - ≤ 0.0002%.

## Packaging

Paper bags: 25 kg

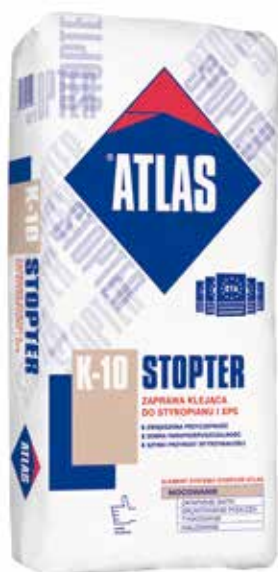
Pallet: 1,050 kg in 25 kg bags

*The above information constitutes basic guidelines for the application of the product and does not release the user from the obligation of carrying out works according to engineering principles and OHS regulations.*

*At the time of publication of this product data sheet all previous ones become void.*

*Date of update: 2015-11-09*





Up to five  
European Technical Approvals  
for ATLAS insulation systems



## ATLAS STOPTER K-10

### adhesive mortar for polystyrene and XPS

- improved bonding
- good water vapour permeability
- rapid strength build-up
- on ceramic, concrete and silicate elements



### Use

**Installation of thermal insulation boards** – when thermal insulation consists of polystyrene boards or extruded polystyrene (XPS) boards.

**Component of thermal insulation systems** – element of composite thermal insulation systems, which have been given both European (ETA) and domestic (AT) technical approvals.

**Installation of various types of polystyrene and extruded polystyrene boards** – including graphite, graphite-enhanced and elastified ones.

**Types of substrates** – concrete of any class, aerated concrete, cement and cement-lime plasters, sandstone, rough walls made of bricks, blocks, hollow blocks and other ceramic or silicate materials.

### Properties

**Water vapour permeable** – does not limit free transfer of water vapour through the insulated partition.

**Improved bonding** – ensures durable bonding to mineral substrates and insulation boards.

**Characterised by rapid strength build-up** – sets fast and enables quick commencement of subsequent technological phases.

### Technical data

ATLAS STOPTER K-10 is listed in the following technical approvals for thermal insulation systems:

Bulk density (of dry mix)	approx. 1.40 kg/dm <sup>3</sup>
Mass bulk density (after mixing)	approx. 1.85 kg/dm <sup>3</sup>
Dry density (after setting)	approx. 1.74 kg/dm <sup>3</sup>
Mixing ratio (water/dry mix)	0.20 ÷ 0.22 l/1 kg 5.00 ÷ 5.50 l/25 kg
Bonding to concrete	≥ 0.25 MPa
Bonding to polystyrene	≥ 0.08 MPa
Mortar preparation temperature, substrate and ambient temperature during work	from +5°C to +25°C
Maturing time	approx. 5 minutes
Pot life	approx. 3 hours
Open time	min. 25 minutes

### Technical requirements

ATLAS STOPTER K-10 is listed in the following technical approvals for thermal insulation systems:

System name	Technical Approval No.	Certificate No.
ATLAS	ETA 06/0081	EC 1488-CPD-0021
ATLAS XPS	ETA 07/0316	EC 1488-CPD-0075
ATLAS ETICS	AT-15-9090/2014	FPC No. ITB-0562/Z
ATLAS RENOTER	AT-15-8477/2010 + Annex 1	FPC No. ITB-0456/Z

The product has been given the National Standard Authority of Ireland (NSAI) Certificate no. 10/0347 and the British Board of Agrément (BBA) Certificate no. 13/5018.

The product has been given the Radiation Hygiene Certificate.

## Boards installation

### Substrate preparation

The substrate should be frost-free, stable, even and structurally sound, i.e. strong enough, free from layers which would impair the mortar bonding, in particular dust, dirt, lime, oil, grease, wax, remains of emulsion and oil paints. Prior to repair works substrate should be cleaned and, if excessively absorptive, primed with ATLAS UNI-GRUNT emulsion. Prime also weak cement, cement-lime plasters and rough walls made of cellular concrete or hollow cinder blocks. Major irregularities or cavities should be filled with ATLAS ZW 330 or ATLAS PLASTERING MIX.

### Mortar preparation

Pour the mortar from the bag into a clean container with the suitable amount of water (see Technical Data for ratio) and mix using a mixer with a drill until homogenous. Leave the mortar to rest for 5 minutes and remix. The mortar should be used up within approx. 3 hours.

### Boarding

Apply the mortar on the back side of a board with the "strip-point method", i.e. apply continuous circumferential bead (min. 3 cm wide) along the board edges and 6-8 patches (of diameter 8-12 cm) evenly distributed upon the board surface. In total, mass should coat min. 40% of the board surface (60% after pressing the board to substrate) and provide appropriate bonding between the board and the wall. Just after mortar application the board should be placed upon substrate and pressed onto expected place, so the mortar thickness beneath the board does not exceed 10 mm. In case of even and smooth substrates, it is acceptable to spread the mortar evenly with a notched trowel upon the whole board surface, so it forms layer 2-5 mm thick after fixing.

## Consumption

The actual consumption depends on substrate parameters (e.g. evenness) and technology of boards installation. Average consumption: from 4.0 up to 5.0 kg/1 m<sup>2</sup>.

## Important additional information

- Do not fix heated graphite polystyrene. Protect graphite polystyrene against heating up during installation and initial adhesive setting. Heating graphite polystyrene during any of these phases can result in the adhesive loosening.
- The mortar parameters are used to its full advantage only when applied in combination with other system components and according to the technology of system installation.
- Use scaffolding covers during work. Do not carry out installation during snowfall, rain and in strong wind.
- When fixing the boards onto poor substrates of hard to determine bearing capacity (e.g. unstable, dusty, hard to clean), it is advisable to conduct a test of bonding. It consists in fixing 8-10 polystyrene cubes (10x10 cm large) at various façade points and checking the bond after 3 days. The substrate strength can be assumed as acceptable when polystyrene cube breaks within when teared off. If the cube tears off with mortar or substrate layer, then the substrate bearing capacity is insufficient. In such case further procedure, e.g. technology of weak layer removal, should be described in the external insulation design.
- Tools must be cleaned with clean water directly after use. Difficult to remove residues of the set mortar can be removed with the ATLAS SZOP agent.
- Contains cement. May cause respiratory irritation. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Keep out of reach of children. Avoid breathing dust. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Follow the instructions of the Safety Data Sheet.
- The mortar must be transported and stored in tightly sealed bags, in dry conditions (most preferably on pallets). Protect against humidity. Shelf life in conditions as specified is 12 months from the production date shown on the packaging. Content of soluble chromium (VI) in ready-to-use mix - ≤ 0.0002%.

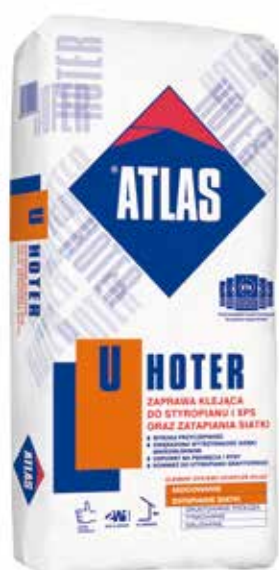
## Packaging

Paper bags: 25 kg

Pallet: 1,050 kg in 25 kg bags

*The above information constitutes basic guidelines for the application of the product and does not release the user from the obligation of carrying out works according to engineering principles and OHS regulations.*

*At the time of publication of this product data sheet all previous ones become void. Date of update: 2015-11-12*



Up to five  
European Technical Approvals  
for ATLAS insulation systems



## ATLAS HOTER U

### 2 in 1 - adhesive mortar for polystyrene and XPS and for mesh embedding

- improved bonding
- good water vapour permeability
- rapid strength build-up
- on ceramic, concrete and silicate elements



### Use

**2 in 1** – for installation of thermal insulation boards and application of base coat of thermal insulation systems.

**Component of thermal insulation systems** – element of composite thermal insulation systems, which have been given both European (ETA) and domestic (AT) technical approvals.

**Recommended for insulation of passive and energy efficient buildings** – helps to reach the partition tightness required in passive housing, fixes insulation boards even 25 cm thick.

**Installation of various types of polystyrene and extruded polystyrene boards** – including graphite, graphite-enhanced and elastified ones.

**Types of substrates** – concrete of any class, aerated concrete, cement and cement-lime plasters, sandstone, rough walls made of bricks, blocks, hollow blocks and other ceramic or silicate materials.

### Properties

**Flexible** – compensates stress resulting from thermal and operation loads.

**Improved resistance to cracking** – reinforced with microfibres, therefore base coat perfectly transfers stress.

**Very good bonding** – strongly bonds to mineral substrates.

**Water vapour permeable** – does not limit free transfer of water vapour through the insulated partition.

**Available in two versions: based on white and grey cement** – the use of white cement improves the base coat resistance.

### Technical data

ATLAS HOTER U is manufactured as a dry mix of high quality cement binder, aggregates and modifiers, reinforced with cellulose fibres.

Bulk density (of dry mix)	approx. 1.40 kg/dm <sup>3</sup>
Mass bulk density (after mixing)	approx. 1.55 kg/dm <sup>3</sup>
Dry density (after setting)	approx. 1.45 kg/dm <sup>3</sup>
Mixing ratio (water/dry mix)	0.20 ÷ 0.22 l/1 kg 5.00 ÷ 5.50 l/25 kg
Min/max base coat thickness	2 mm/ 5 mm
Bonding to concrete in air-dry state	min. 0.25 MPa
Bonding to polystyrene in air-dry state	min. 0.08 MPa
Mortar preparation temperature, substrate and ambient temperature during work	from +5°C to +25°C
Maturing time	approx. 5 minutes
Pot life	approx. 4 hours
Open time	min. 25 minutes

### Technical requirements

The product has been given the ITB Technical Approval AT-15-6347/2014. Domestic Declaration of Conformity 081-1 of 07.11.2014.

ATLAS HOTER U (grey version) is listed in the following technical approvals for thermal insulation systems:

System name	Technical Approval No.	Certificate No.
ATLAS	ETA 06/0081	EC 1488-CPD-0021
ATLAS XPS	ETA 07/0316	EC 1488-CPD-0075
ATLAS ETICS	AT-15-9090/2014	FPC No. ITB-0562/Z
ATLAS RENOTER	AT-15-8477/2010	FPC No. ITB-0456/Z

ATLAS HOTER U (white version) is listed in the following technical approvals for thermal insulation systems:

System name	Technical Approval No.	Certificate No.
ATLAS ETICS	AT-15-9090/2014	FPC No. ITB-0562/Z

The product has been given the National Standard Authority of Ireland (NSAI) Certificate no. 10/0347 and the British Board of Agrément (BBA) Certificate no. 13/5018.

The product has been given the Hygienic Certificate and the Radiation Hygiene Certificate.

## Boards and base coat installation

### Substrate preparation

The substrate should be frost-free, stable, even and structurally sound, i.e. strong enough, free from layers which would impair the mortar bonding, in particular dust, dirt, lime, oil, grease, wax, remains of emulsion and oil paints. Prior to repair works substrate should be cleaned and, if excessively absorptive, primed with ATLAS UNI-GRUNT emulsion. Prime also weak cement, cement-lime plasters and rough walls made of cellular concrete or hollow cinder blocks. Major irregularities or cavities should be filled with ATLAS ZW 330 or ATLAS PLASTERING MIX.

### Boards preparation for base coat

The boards surface should be frost-free, even, clean, stable and dusted, if boards have been grinded since fixing. It is advisable to grind and dust graphite boards prior to base coat application.

### Mortar preparation

Pour the mortar from the bag into a clean container with the suitable amount of water (see Technical Data for ratio) and mix using a mixer with a drill until homogenous. Leave the mortar to rest for 5 minutes and remix. The mortar should be used up within approx. 4 hours.

### Boarding

Apply the mortar on the back side of a board with the "strip-point method", i.e. apply continuous circumferential bead (min. 3 cm wide) along the board edges and 6-8 patches (of diameter 8-12 cm) evenly distributed upon the board surface. In total, mass should coat min. 40% of the board surface (60% after pressing the board to substrate) and provide appropriate bonding between the board and the wall. Just after mortar application the board should be placed upon substrate and pressed onto expected place, so the mortar thickness beneath the board does not exceed 10 mm. In case of even and smooth substrates, it is acceptable to spread the mortar evenly with a notched trowel upon the whole board surface, so it forms layer 2-5 mm thick after fixing.

### Base coat application

Base coat can be applied when adhesive mortar used for boards fixing sets appropriately and after additional mechanical fixing (after 3 days on average). Apply mortar upon fixed insulation, spread with a notched trowel and embed the fiberglass mesh. Embed the mesh with vertical strips and float smooth, so it's fully coated and does not contact polystyrene boards directly.

### Finishing works

Rendering can commence when weather conditions meet the requirements listed in the technical data sheets of thin-coat renders, not earlier however than 3 days since the base coat installation.

## Consumption

The actual consumption depends on substrate parameters (e.g. evenness) and technology of boards installation.

Boarding: from 4.0 up to 5.0 kg/1 m<sup>2</sup>.

Base coat application: from 3.0 up to 3.5 kg/1 m<sup>2</sup>.

## Important additional information

- Do not fix heated graphite polystyrene. Protect graphite polystyrene against heating up during installation and initial adhesive setting. Heating graphite polystyrene during any of these phases can result in the adhesive loosening.
- The mortar parameters are used to its full advantage only when applied in combination with other system components and according to the technology of system installation.
- Use scaffolding covers during work. Do not carry out installation during snowfall, rain and in strong wind.
- When fixing the boards onto poor substrates of hard to determine bearing capacity (e.g. unstable, dusty, hard to clean), it is advisable to conduct a test of bonding. It consists in fixing 8-10 polystyrene cubes (10x10 cm large) at various façade points and checking the bond after 3 days. The substrate strength can be assumed as acceptable when polystyrene cube breaks within when teared off. If the cube tears off with mortar or substrate layer, then the substrate bearing capacity is insufficient. In such case further procedure, e.g. technology of weak layer removal, should be described in the external insulation design.
- Tools must be cleaned with clean water directly after use. Difficult to remove residues of the set mortar can be removed with the ATLAS SZOP agent.
- Contains cement. May cause respiratory irritation. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Keep out of reach of children. Avoid breathing dust. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Follow the instructions of the Safety Data Sheet.
- The mortar must be transported and stored in tightly sealed bags, in dry conditions (most preferably on pallets). Protect against humidity. Shelf life in conditions as specified is 12 months from the production date shown on the packaging. Content of soluble chromium (VI) in ready-to-use mix - ≤ 0.0002%.

## Packaging

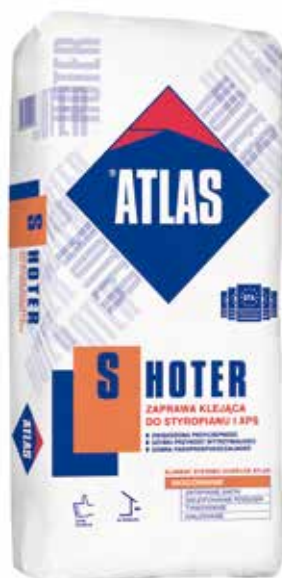
Paper bags: 25 kg

Pallet: 1,050 kg in 25 kg bags

*The above information constitutes basic guidelines for the application of the product and does not release the user from the obligation of carrying out works according to engineering principles and OHS regulations.*

*At the time of publication of this product data sheet all previous ones become void.*

*Date of update: 2016-02-19*



Up to five  
European Technical Approvals  
for ATLAS insulation systems



## ATLAS HOTER S

### adhesive mortar for polystyrene and XPS

- improved bonding
- good water vapour permeability
- rapid strength build-up
- on ceramic, concrete and silicate elements



FOR WALLS



FROST AND  
WATERPROOF



EASY IN USE



APPLY WITH FLOAT



APPLY WITH  
TROWEL

### Use

**Installation of thermal insulation boards** – when thermal insulation consists of polystyrene boards (including boards with graphite) and extruded polystyrene (XPS) boards.

**Component of thermal insulation systems** – element of composite thermal insulation systems, which have been given both European (ETA) and domestic (AT) technical approvals.

**Types of substrates** – concrete of any class, aerated concrete, cement and cement-lime plasters, sandstone, rough walls made of bricks, blocks, hollow blocks and other ceramic or silicate materials.

### Properties

**Water vapour permeable** – does not limit free transfer of water vapour through the insulated partition.

**Improved bonding** – ensures durable bonding to mineral substrates and insulation boards.

**Characterised by rapid strength build-up** – sets fast and enables quick commencement of subsequent technological phases.

### Technical data

ATLAS HOTER S is manufactured as a dry mix of high quality cement binder, aggregates and modifiers.

Bulk density (of dry mix)	approx. 1.47 kg/dm <sup>3</sup>
Mass bulk density (after mixing)	approx. 1.48 kg/dm <sup>3</sup>
Dry density (after setting)	approx. 1.47 kg/dm <sup>3</sup>
Mixing ratio (water/dry mix)	0.20 ÷ 0.22 l/1 kg 5.00 ÷ 5.50 l/25 kg
Bonding to concrete	min. 0.25 MPa
Bonding to polystyrene	min. 0.08 MPa
Mortar preparation temperature, substrate and ambient temperature during work	from +5°C to +25°C
Maturing time	approx. 5 minutes
Pot life	approx. 3 hours
Open time	min. 25 minutes

### Technical requirements

ATLAS HOTER S is listed in the following technical approvals for thermal insulation systems:

System name	Technical Approval No.	Certificate No.
ATLAS	ETA 06/0081	EC 1488-CPD-0021
ATLAS XPS	ETA 07/0316	EC 1488-CPD-0075
ATLAS ETICS	AT-15-9090/2014	FPC No. ITB-0562/Z
ATLAS RENOTER	AT-15-8477/2010	FPC No. ITB-0456/Z

The product has been given the National Standard Authority of Ireland (NSAI) Certificate no. 10/0347 and the British Board of Agrément (BBA) Certificate no. 13/5018.

The product has also been given the ITB Technical Approval AT-15-6348/2014. Domestic Declaration of Conformity No. 080 of 06.11.2014. The product has been given the Radiation Hygiene Certificate.

## Boards installation

### Substrate preparation

The substrate should be frost-free, stable, even and structurally sound, i.e. strong enough, free from layers which would impair the mortar bonding, in particular dust, dirt, lime, oil, grease, wax, remains of emulsion and oil paints. Prior to repair works substrate should be cleaned and, if excessively absorptive, primed with ATLAS UNI-GRUNT emulsion. Prime also weak cement, cement-lime plasters and rough walls made of cellular concrete or hollow cinder blocks. Major irregularities or cavities should be filled with ATLAS ZW 330 or ATLAS PLASTERING MIX.

### Mortar preparation

Pour the mortar from the bag into a clean container with the suitable amount of water (see Technical Data for ratio) and mix using a mixer with a drill until homogenous. Leave the mortar to rest for 5 minutes and remix. The mortar should be used up within approx. 3 hours.

### Boarding

Apply the mortar on the back side of a board with the "strip-point method", i.e. apply continuous circumferential bead (min. 3 cm wide) along the board edges and 6-8 patches (of diameter 8-12 cm) evenly distributed upon the board surface. In total, mass should coat min. 40% of the board surface (60% after pressing the board to substrate) and provide appropriate bonding between the board and the wall. Just after mortar application the board should be placed upon substrate and pressed onto expected place, so the mortar thickness beneath the board does not exceed 10 mm. In case of even and smooth substrates, it is acceptable to spread the mortar evenly with a notched trowel upon the whole board surface, so it forms layer 2-5 mm thick after fixing.

## Consumption

The actual consumption depends on substrate parameters (e.g. evenness) and technology of boards installation. Average consumption: from 4.0 up to 5.0 kg/1 m<sup>2</sup>.

## Important additional information

- Do not fix heated graphite polystyrene. Protect graphite polystyrene against heating up during installation and initial adhesive setting. Heating graphite polystyrene during any of these phases can result in the adhesive loosening.
- The mortar parameters are used to its full advantage only when applied in combination with other system components and according to the technology of system installation.
- Use scaffolding covers during work. Do not carry out installation during snowfall, rain and in strong wind.
- When fixing the boards onto poor substrates of hard to determine bearing capacity (e.g. unstable, dusty, hard to clean), it is advisable to conduct a test of bonding. It consists in fixing 8-10 polystyrene cubes (10x10 cm large) at various façade points and checking the bond after 3 days. The substrate strength can be assumed as acceptable when polystyrene cube breaks within when teared off. If the cube tears off with mortar or substrate layer, then the substrate bearing capacity is insufficient. In such case further procedure, e.g. technology of weak layer removal, should be described in the external insulation design.
- Tools must be cleaned with clean water directly after use. Difficult to remove residues of the set mortar can be removed with the ATLAS SZOP agent.
- Contains cement. May cause respiratory irritation. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Keep out of reach of children. Avoid breathing dust. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Follow the instructions of the Safety Data Sheet.
- The mortar must be transported and stored in tightly sealed bags, in dry conditions (most preferably on pallets). Protect against humidity. Shelf life in conditions as specified is 12 months from the production date shown on the packaging. Content of soluble chromium (VI) in ready-to-use mix - ≤ 0.0002%.

## Packaging

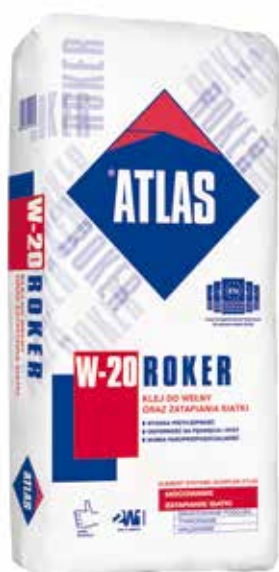
Paper bags: 25 kg

Pallet: 1,050 kg in 25 kg bags

*The above information constitutes basic guidelines for the application of the product and does not release the user from the obligation of carrying out works according to engineering principles and OHS regulations.*

*At the time of publication of this product data sheet all previous ones become void.  
Date of update: 2015-02-25*





Up to five  
European Technical Approvals  
for ATLAS insulation systems



## ATLAS ROKER W-20

### 2 in 1 - adhesive mortar for mineral wool and for mesh embedding

- good bonding
- good water vapour permeability
- excellent flexibility
- resistant to cracks and scratches
- onto rough and plastered walls



### Use

**2 in 1** – for installation of thermal insulation boards and application of base coat of thermal insulation systems.

**Component of thermal insulation systems** – element of composite thermal insulation systems, which have been given both European (ETA) and domestic (AT) technical approvals.

**Can be used with mineral wool thermal insulation with disordered (façade boards) and ordered fibre arrangement (lamella boards).**

**Types of substrates** – concrete of any class, aerated concrete, cement and cement-lime plasters, sandstone, rough walls made of bricks, blocks, hollow blocks and other ceramic or silicate materials.

### Properties

**Very good bonding** – strongly bonds to difficult substrates, e.g. surfaces coated with strongly bonded paints.

**Highly flexible** – perfectly compensates stress resulting from thermal and operation loads.

**Element of mineral renovation of old, dusty plasters** – in combination with reinforcing mesh embedded and façade paint it forms a repair layer for old plasters (cracked, poor, soiled).

**Very high water vapour permeability** – does not limit free transfer of water vapour through the insulated partition, which is particularly significant for mineral wool insulation.

### Technical data

ATLAS ROKER W-20 is manufactured as a dry mix of high quality cement binder, aggregates and modifiers.

Bulk density (of dry mix)	approx. 1.24 kg/dm <sup>3</sup>
Mass bulk density (after mixing)	approx. 1.55 kg/dm <sup>3</sup>
Dry density (after setting)	approx. 1.43 kg/dm <sup>3</sup>
Mixing ratio (water/dry mix)	0.22 ÷ 0.24 l/1 kg 5.50 ÷ 6.00 l/25 kg
Min./max base coat thickness	4 mm/ 6 mm
Bonding to concrete in air-dry state	≥ 0.25 MPa
Bonding to mineral wool in air-dry state	≥ 0.08 MPa
Mortar preparation temperature, substrate and ambient temperature during work	from +5°C to +25°C
Maturing time	approx. 5 minutes
Pot life	approx. 2 hours
Open time	min. 30 minutes

### Technical requirements

ATLAS ROKER W-20 is listed in the following technical approvals for thermal insulation systems:

System name	Technical Approval No.	Certificate No.
ATLAS ROKER	ETA 06/0173	EC 1488-CPD-0036
ATLAS ROKER G	AT-15-7314/2011	FPC No. ITB-0222/Z
ATLAS ROKER	AT-15-2930/2012	FPC No. ITB-0436/Z

The product has been given the National Standard Authority of Ireland (NSAI) Certificate no. 10/0347 and the British Board of Agrément (BBA) Certificate no. 13/5018.

The product has also been given the ITB Technical Approval AT-15-2927/2014. Certificate of Factory Production Control Certificate no. ITB-0604/Z. Domestic Declaration of Conformity 005-1 of 10.03.2014. The product has been given the Hygienic Certificate and the Radiation Hygiene Certificate.

## Boards and base coat installation

### Substrate preparation for boarding

The substrate should be frost-free, stable, even and structurally sound, i.e. strong enough, free from layers which would impair the mortar bonding, in particular dust, dirt, lime, oil, grease, wax, remains of emulsion and oil paints. Prior to repair works substrate should be cleaned and, if excessively absorptive, primed with ATLAS UNI-GRUNT emulsion. Prime also weak cement, cement-lime plasters and rough walls made of cellular concrete or hollow cinder blocks. Major irregularities or cavities should be filled with ATLAS ZW 330 or ATLAS PLASTERING MIX.

### Boards preparation for base coat

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

### Mortar preparation

Pour the mortar from the bag into a clean container with the suitable amount of water (see Technical Data for ratio) and mix using a mixer with a drill until homogenous. Leave the mortar to rest for 5 minutes and remix. The mortar should be used up within approx. 2 hours.

### Boarding

Float the board surface with mortar, leave for initial setting and apply the main mortar coat with the "strip-point method". Circumferential mortar bead along the board edges should be min. 3 cm wide. Apply 6-8 patches (of diameter 8-12 cm) evenly distributed upon the board surface. In total, mass should coat min. 40% of the board surface (60% after pressing the board to substrate) and provide appropriate bonding between the board and the wall. In case of even and smooth substrates it is acceptable to apply uniformly the mortar with a steel float upon the whole board surface. Just after mortar application the board should be placed upon substrate and pressed onto expected place. Fixing the boards with mechanical anchors can commence min. 1 day since the boards installation. Use fixings with galvanized pins, min. 8 pcs/m<sup>2</sup>, follow the technical design.

### Base coat application

Base coat can be applied not earlier than 3 days since the boards installation. It consists of fiberglass reinforcing mesh embedded in the adhesive mortar coat. Apply thin mortar coat upon fixed boards. After initial setting, apply subsequent mortar coat with a smooth float (use 2/3 of final mortar amount) and spread uniformly with a notched trowel. Embed mesh strips – press them at some points into the mass and embed with a notched trowel then, so they're fully coated with mortar. Apply the remaining 1/3 of the mass and smooth the surface. Grind any irregularities as they can prevent correct application of renders.

### Finishing works

Rendering can commence when weather conditions meet the requirements listed in the technical data sheets of thin-coat renders, not earlier however than 3 days since the base coat installation.

## Consumption

The actual consumption depends on substrate parameters (e.g. evenness) and technology of boards installation.

Boarding: from 4.5 up to 5.5 kg/1 m<sup>2</sup>.

Base coat application: from 5.5 up to 6.5 kg/1 m<sup>2</sup>.

## Important additional information

- The mortar parameters are used to its full advantage only when applied in combination with other system components and according to the technology of system installation.
- Use scaffolding covers during work. Do not carry out installation during snowfall, rain and in strong wind.
- When fixing the boards onto poor substrates of hard to determine bearing capacity (e.g. unstable, dusty, hard to clean), it is advisable to conduct a test of bonding. It consists in fixing 8-10 wool cubes (10x10 cm large) at various façade points and checking the bond after 3 days. The substrate strength can be assumed as acceptable when cube breaks within when teared off. If the cube tears off with mortar or substrate layer, then the substrate bearing capacity is insufficient. In such case further procedure, e.g. technology of weak layer removal, should be described in the external insulation design.
- Tools must be cleaned with clean water directly after use. Difficult to remove residues of the set mortar can be removed with the ATLAS SZOP agent.
- Contains cement. May cause respiratory irritation. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Keep out of reach of children. Avoid breathing dust. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Follow the instructions of the Safety Data Sheet.
- The mortar must be transported and stored in tightly sealed bags, in dry conditions (most preferably on pallets). Protect against humidity. Shelf life in conditions as specified is 12 months from the production date shown on the packaging. Content of soluble chromium (VI) in ready-to-use mix - ≤ 0.0002%.

## Packaging

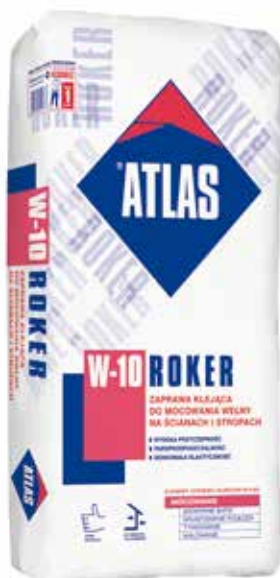
Paper bags: 25 kg

Pallet: 1,050 kg in 25 kg bags

*The above information constitutes basic guidelines for the application of the product and does not release the user from the obligation of carrying out works according to engineering principles and OHS regulations.*

*At the time of publication of this product data sheet all previous ones become void.*

*Date of update: 2016-04-20*



## ATLAS ROKER W-10

### adhesive mortar for insulation of walls and ceilings

- very good bonding to mineral wool and substrate
- plastic during application
- water vapour permeable
- component of non-flammable insulation system



### Use

Installation of mineral wool thermal insulation boards in the technology of external wall insulation with ATLAS ROKER system.

Installation of lamella wool thermal insulation in the technology of ceilings insulation with ATLAS ROKER G system (type III):

- installation of boards upon ceilings (from the ceiling bottom side outdoors), above which heated rooms are located – ceilings over passages, car parks, etc.
- installation of boards onto walls and ceilings (from the ceiling bottom side indoors) in non-heated rooms, e.g. garages, cellars – where heated rooms are located above or in close neighbourhood.

**Types of substrates** – concrete of any class, aerated concrete, cement and cement-lime plasters, rough walls made of bricks, blocks, etc.

### Properties

**Very good bonding** – strongly bonds to typical construction substrates.

**Flexible** – compensates stress resulting from thermal loads.

**Water vapour permeable** – does not limit free transfer of water vapour through the insulated partition.

**Forms layer of high resistance** – durable bond between thermal insulation and substrate.

**Convenient in use** – very good workability, plastic during application, perfectly bonds to mineral wool.

### Technical data

ATLAS ROKER W-10 is manufactured as a dry mix of high quality cement binder, aggregates and modifiers.

Bulk density (of dry mix)	approx. 1.30 kg/dm <sup>3</sup>
Mass bulk density (after mixing)	approx. 1.65 kg/dm <sup>3</sup>
Dry density (after setting)	approx. 1.45 kg/dm <sup>3</sup>
Mixing ratio (water/dry mix)	0.21 ÷ 0.25 l/1 kg 5.25 ÷ 6.25 l/25 kg
Min./max base coat thickness	4 mm/ 6 mm
Bonding to concrete in air-dry state	min. 0.3 MPa
Bonding to mineral wool in air-dry state	min. 0.08 MPa
Mortar preparation temperature, substrate and ambient temperature during work	from +5°C to +30°C
Maturing time	approx. 5 minutes
Pot life	approx. 4 hours
Open time	min. 25 minutes

### Technical requirements

ATLAS ROKER W-10 is listed in the following technical approvals for thermal insulation systems:

System name	Technical Approval No.	Certificate No.
ATLAS ROKER G	AT-15-7314/2011	FPC No. ITB-0222/Z
ATLAS ROKER	AT-15-2930/2012	FPC No. ITB-0436/Z

## Boards installation

### Substrate preparation for boarding

The substrate should be frost-free, stable, even and structurally sound, i.e. strong enough, free from layers which would impair the mortar bonding, in particular dust, dirt, lime, oil, grease, wax, remains of emulsion and oil paints. Prior to repair works substrate should be cleaned and, if excessively absorptive, primed with ATLAS UNI-GRUNT emulsion. Prime also weak cement, cement-lime plasters and rough walls made of cellular concrete or hollow cinder blocks. Major irregularities or cavities should be filled with ATLAS ZW 330 or ATLAS PLASTERING MIX.

### Mortar preparation

Pour the mortar from the bag into a clean container with the suitable amount of water (see Technical Data for ratio) and mix using a mixer with a drill until homogenous. Leave the mortar to rest for 5 minutes and remix. The mortar should be used up within approx. 4 hours.

### Boarding in ATLAS ROKER G system (insulation of ceilings)

Float the lamella wool board surface with mortar, leave for initial setting and apply the main mortar coat with a notched trowel. Just after mortar application the board should be placed upon substrate and pressed onto expected place.

### Boarding in ATLAS ROKER system (insulation of walls)

Float the board surface with mortar, leave for initial setting and apply the main mortar coat with the "strip-point method". Circumferential mortar bead along the board edges should be min. 3 cm wide. Apply 6-8 patches (of diameter 8-12 cm) evenly distributed upon the board surface. In total, mass should coat min. 40% of the board surface (60% after pressing the board to substrate) and provide appropriate bonding between the board and the wall. In case of even and smooth substrates it is acceptable to apply uniformly the mortar with a steel float upon the whole board surface. Just after mortar application the board should be placed upon substrate and pressed onto expected place. Fixing the boards with mechanical anchors can commence min. 1 day since the boards installation. Use fixings with galvanized pins, min. 8 pcs/m<sup>2</sup>, follow the technical design.

### Finishing works

Rendering can commence when weather conditions meet the requirements listed in the technical data sheets of thin-coat renders, not earlier however than 3 days since the base coat installation.

## Consumption

The actual consumption depends on substrate parameters (e.g. evenness) and technology of boards installation. Average consumption: from 4.5 up to 5.5 kg/1 m<sup>2</sup>.

## Important additional information

- The mortar parameters are used to its full advantage only when applied in combination with other system components.
- Thermal insulation of outdoor ceilings must not be exposed to direct precipitation. Thermal insulation of ceilings and walls indoors must not be exposed to mechanical damage.
- When fixing the boards onto poor substrates of hard to determine bearing capacity (e.g. unstable, dusty, hard to clean), it is advisable to conduct a test of bonding. It consists in fixing 8-10 wool cubes (10x10 cm large) at various façade points and checking the bond after 3 days. The substrate strength can be assumed as acceptable when cube breaks within when teared off. If the cube tears off with mortar or substrate layer, then the substrate bearing capacity is insufficient. In such case further procedure, e.g. technology of weak layer removal, should be described in the external insulation design.
- Tools must be cleaned with clean water directly after use. Difficult to remove residues of the set mortar can be removed with the ATLAS SZOP agent.
- Contains cement. May cause respiratory irritation. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Keep out of reach of children. Avoid breathing dust. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Follow the instructions of the Safety Data Sheet.
- The mortar must be transported and stored in tightly sealed bags, in dry conditions (most preferably on pallets). Protect against humidity. Shelf life in conditions as specified is 12 months from the production date shown on the packaging. Content of soluble chromium (VI) in ready-to-use mix - ≤ 0.0002%.

## Packaging

Paper bags: 25 kg

Pallet: 1,050 kg in 25 kg bags

*The above information constitutes basic guidelines for the application of the product and does not release the user from the obligation of carrying out works according to engineering principles and OHS regulations.*

*At the time of publication of this product data sheet all previous ones become void.  
Date of update: 2015-05-07*