ATLAS®

Contractor's Handbook

Contractor's Handbook

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product updates, deals and events

FOREWORD

Dear Customer,

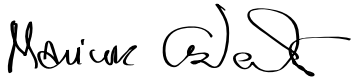
This edition of our User Manual for Professionals is a special edition due to its 10th anniversary. With each edition, more and more advanced product solutions have been introduced and the technological possibilities expanded. Thus, a decade has produced a very wide range of construction chemicals that are now part of the ATLAS portfolio.

NEWLY released in this offer were:
- **ATLAS ULTRA GEOFLEX WHITE**, a white cement-based, highly elastic, deformable S1 class gel adhesive that complements the range of adhesives based on gel technology,
- **ATLAS ELASTIC GROUT**, launched at the end of 2021 and appreciated for its unprecedented smooth texture and ease of application,
- **ATLAS WODER SX**, a one-component waterproofing with self-healing effect for structural waterproofing of the substrate using crystallisation technology,
- **ATLAS SMS 80**, a self-levelling cement screed that extends the SMS family to include a screed with a thickness of 25 to 80 mm, which can also be used to embed underfloor heating or as a floating screed or on a separating layer,
- **ATLAS SILKON BA!** a perfectly hydrophobic silicone render with low absorbency and the texture of exposed concrete, which can be used on façades on ETICS as well as a decorative finish in the living room or even in the bathroom shower – without impregnation.

In a new version were presented:
- **ATLAS PLUS S2 HYDRO**, adhesive and waterproofing in one with unlimited application possibilities, both indoors and outdoors, as certified by a national technical assessment
- **ATLAS STONER**, a filler for grouting without joint tape in a new, handy 4-kilo pack
- **ATLAS M-SYSTEM® 3G**, an already well-known and proven system for the installation of drywall made of plasterboard and OSB, now with fire resistance certification
- **GIPSAR UNI**, the gypsum finishing plaster most often chosen by professionals in Poland, with even better properties and increased hardness

Also worthy of attention in this issue are the ATLAS products that have already established themselves on the market and are appreciated by professionals thanks to their proven properties, such as: **ATLAS CERAMIC GROUT**, the most dirt-repellent jointing mortar on the market, **ATLAS WODER DUO** for reliable waterproofing even under extreme conditions, **ATLAS POSTAR 60** for accelerating interior finishing work, **ATLAS MONTER T-5** a universal and fast installation mortar, **ATLAS EPO-S**, a shrinkage-free setting epoxy binder, **ATLAS GTA** – indispensable when a perfectly smooth, reliable and super-white finishing render is required, **ATLAS CERAMIK**, the unsurpassed façade system, **ATLAS GRAWIS S** and **ATLAS GRAWIS U** (as well as Grawis U for reinforcement layers) – polystyrene adhesives that are up to all challenges, and **ATLAS SALTA N PLUS**, the outstanding silicone paint with self-cleaning effect and high water vapour permeability, ideal for new façades and for façade renovation.

On the occasion of the 10th anniversary of our User Manual for Professionals, we wish you and us inspiration and success in all projects... and thank you for being with us!



Dr. Eng. Mariusz Garecki
Director of Product Development and Training

The information contained herein is based on the knowledge as of October 2022.

CONTENTS

1

adhesives, grouts, silicones

ATLAS PLUS S2 HYDRO

Highly deformable adhesive S2 with waterproofing function for indoor and outdoor use

TERRACES AND BALCONIES

High resistance to thermal shock.

BATHROOM, KITCHEN, GARAGE, BOILER ROOM

Provides a high level of deformability of S2 class adhesive.

HIGHLY DEFORMABLE
ADHESIVE S2
WITH FUNCTION OF WATERPROOFING

TIMBER FRAME HOUSES

Safe and long-term use of tiles installed on deformable substrates and substrates exposed to mechanical vibrations.

EXTREME TECHNOLOGICAL CONDITIONS

Guarantees durability of tiles installed in places with high temperature and humidity.

2 in 1: tiling and waterproofing in one go

application in 1 cycle, enables the installation of terrace profiles, sealing tapes

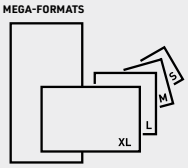
no risk of water seeping under the tile

waterproof at a pressure of 15 m of water column

very high deformability resistance to vibrations and thermal shock

crack bridging

up to 0.8 mm



all tile sizes

even over **5 m²**

for all substrates

even the most difficult substrates, such as old ceramic tiles, composite panels, OSB, wooden boards, plywood

ATLAS PLUS

1 PRODUCT 2 FUNCTIONS 3 TECHNOLOGIES

- POLYMER TECHNOLOGY
- DOUBLE-FIBRE TECHNOLOGY
- ELASTOMER FILLER TECHNOLOGY

DOUBLE-FIBRE TECHNOLOGY

PRODUCT	ATLAS PLUS S2 HYDRO	ATLAS PLUS	ATLAS PLUS WHITE	ATLAS PLUS EXPRESS
	highly deformable adhesive S2 with waterproofing function	highly elastic deformable adhesive S1	white deformable adhesive S1	rapid-set deformable adhesive S1
TECHNICAL DATA				
Class	C2 TE S2	C2 TE S1	C2 TE S1	C2 FT S1
Adhesive strength (N/mm²)	≥ 1	≥ 1	≥ 1	≥ 1
Layer thickness (mm)	2-10 / 3-10 / 5*	2-10		2-5
Tile size, format	all available formats, also > 5 m²			
Application temperature (°C)	+5 ÷ +25	+1 ÷ +25	+5 ÷ +25	
Amount of mixing water (l/kg)	0.37 ÷ 0.41 (2 in 1) 0.34 ÷ 0.37 (adhesive)	0.26 ÷ 0.29	0.26 ÷ 0.28	0.22
Pot life (h)	up to 2	approx. 4		approx.1
Open time (min)	30			
Adjustability time (min)	10			
Wall grouting (h)	16	16	24	4
Floor access / grouting (h)	24	24		
Full load – foot traffic (days)	3	3	3	1
Full load – vehicle traffic (days)	14	14	14	14
Full load with water in pool / tank (days)	14	14	14	14
Floor heating (days)	21	21	21	21
TILE TYPES				
Glazed tiles	+	+	+	+
Terracotta	+	+	+	+
Porcelain stoneware	+	+	+	+
Glazed stoneware	+	+	+	+
Stone floors	+**	+**	+	+**
Clinker bricks	+	+	+	+
Stoneware	+	+	+	+
Ceramic mosaic tiles	+	+	+	+
Glass mosaic tiles	+**	+**	+**	+**
Glass, coloured, printed tiles	+**	+**	+**	+**
Concrete / cement tiles	+	+	+	+
Composite panels	+	+	+	+
Thermal and sound insulation panels	+	+	+	+
PACKAGING AND STORAGE				
Package size (kg)	15	5; 10; 20; 25	5; 25	25
Type of packaging	foil	alubag (5 kg); foil	alubag (5 kg); foil	foil
Storage period (months)	12	15 / 24 (alubag)	15 / 24 (alubag)	12

* respectively: laying tiles / waterproofing + laying tiles / waterproofing
** perform an application test

ATLAS GEOFLEX

NEW!

ALREADY AFTER 2 HOURS!

GEL TEHNOLOGY

PRODUCT	ATLAS ULTRA GEOFLEX	ATLAS ULTRA GEOFLEX WHITE	ATLAS GEOFLEX	ATLAS GEOFLEX WHITE	ATLAS GEOFLEX EXPRESS
	highly elastic deformable gel adhesive S1	highly elastic deformable gel adhesive S1	highly elastic gel adhesive	white highly elastic gel adhesive	fast-setting highly elastic gel adhesive
TECHNICAL DATA					
Class	C2 TE S1	C2 TE S1	C2 TE	C2 TE	C2 FT
Adhesive strength (N/mm^2)	≥ 1	≥ 1	≥ 1	≥ 1	≥ 1 (≥ 0.5 already after 3 hours)
Layer thickness (mm)	2-15				
Tile size, format	even > 5 m^2	even > 5 m^2	small, medium and large (**max. 70 cm x 70 cm**, plank tiles – the length of the longer side ≤ 100 cm)		
Application temperature (°C)	+5 ÷ +35				
Amount of mixing water (l/kg)	0.27 ÷ 0.36	0.27 ÷ 0.36	0.26 ÷ 0.33	0.26 ÷ 0.33	0.24 ÷ 0.30
Pot life (h)	approx. 4	approx. 4	approx. 4	up to 4	45 min for 0.24 l/kg 75 min for 0.30 l/kg
Open time (min)	30				> 20
Adjustability time (min)	20				10
Wall / floor grouting Floor access (h)	12	12	12	12	2
Full load – foot traffic (days)	3	3	3	3	2 – 6 h
Full load – vehicle traffic (days)	14	14	14	14	24 h
Full load with water in pool / tank (days)	14	14	n/a		
Putting underfloor heating into operation (days)	14	14	14	14	7
TILE TYPES					
Glazed tiles	+	+	+	+	+
Terracotta	+	+	+	+	+
Porcelain stoneware	+	+	+	+	+
Glazed stoneware	+	+	-		
Stone floors	+*	+	+*	+	+*
Clinker bricks	+	+	+	+	+
Stoneware	+	+	+	+	+
Ceramic mosaic tiles	+	+	+	+	+
Glass mosaic tiles	+*	+	+*	+*	+*
Glass, coloured, printed tiles	+*	+*	+*	+*	+*
Concrete / cement tiles	+	+	+	+	+
Composite panels	+	+	-		
Thermal and sound insulation panels	+	+	-		
PACKAGING AND STORAGE					
Package size (kg)	5; 25	25	5; 25	5; 25	5; 25
Type of packaging	alubag (5 kg) foil	foil	alubag (5 kg) foil	alubag (5 kg) foil	alubag (5 kg) foil
Storage period (months)	12 / 24 (alubag)	12	12 / 24 (alubag)	12 / 24 (alubag)	12 / 24 (alubag)

* perform an application test and check the instructions of the tile manufacturer

ATLAS ULTRA GEOFLEX WHITE

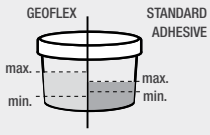
highly elastic deformable gel adhesive C2TE S1

The use of white cement prevents discolouration. The adhesive is perfectly suitable for installing large-size and mega-format tiles made of natural stone or conglomerates.

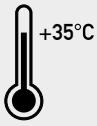
Perfect also for fixing glass mosaic tiles and for joining glass blocks. This highly elastic and deformable adhesive compensates for substrate deformation and thermal stresses caused by, for example, thermal shock.

ATLAS ULTRA GEOFLEX WHITE adhesive is based on the silicate gel technology, therefore it has the ability to bind a large amount of water in a wide temperature range, which facilitates work even under difficult conditions (+35°C). The adhesive's large applicability range of mixing water makes it possible to adjust its consistency. As a flowable adhesive it distributes perfectly under the tiles, as a wall adhesive it guarantees zero slip, even with large-size tiles.

for white marble and glass mosaic tiles

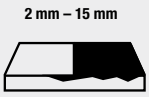


large applicability range of mixing water – consistency adaptable to needs



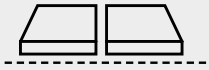
applicability at high temperatures (+5°C to +35°C)

zero slip even with large-size tiles

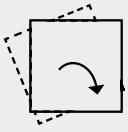


levelling and tilling with thin and thick bed

perfect distribution under the tile



no sinking of the tiles



long adjustability time

ATLAS ELASTIC AND BASIC ADHESIVES

BETTER APPLICATION

DOUBLE POWER OF FIBRES

PRODUCT	ATLAS ELASTYK	ATLAS OK! ELASTICISED ADHESIVE	ATLAS ELASTICISED ADHESIVE MORTAR	ATLAS ATUT
	highly elastic adhesive	elasticised adhesive	universal adhesive	adhesive for tiles
TECHNICAL DATA				
Class	C2 TE	C1 TE	C1 TE	C1 T
Adhesive strength (N/mm²)	≥ 1	≥ 0.5		
Layer thickness (mm)	2-10	2-10		
Tile size, format	max. 60 cm x 60 cm	max. 40 cm x 60 cm	small and medium format of tiles (≤ 0.1 m²) and the length of the longer side ≤ 40 cm	
Application temperature (°C)	+5 ÷ +25	+5 ÷ +30	+5 ÷ +25	
Amount of mixing water (l/kg)	0.29 ÷ 0.30	0.22 ÷ 0.25	0.21 ÷ 0.24	
Pot life (h)	up to 4	up to 4		
Open time (min)	30	30	30	20
Adjustability time (min)	10	10		
Wall grouting (h)	24	12	24	24
Floor access / grouting (h)		24		
Full load – foot traffic (days)	3	3		
Full load – vehicle traffic (days)	14	N/a*		
Floor heating (days)	14	N/a*		
TILE TYPES				
Glazed tiles	+	+	+	+
Terracotta	+	+	+	+
Porcelain stoneware	+	+	+	+
Stone floors	+**	+**	+**	+**
Clinker bricks	+	+	+	+
Stoneware	+	-	-	-
Ceramic mosaic tiles	+	+	+	+
Glass mosaic tiles	+**	-		
Glass, coloured, printed tiles	+**	-		
Concrete / cement tiles	+	+	+	-
PACKAGING AND STORAGE				
Package size (kg)	25	5; 25	5; 10; 25	25
Type of packaging	paper bag	alubag (5 kg), foil	alubag (5 kg), paper bag	paper bag
Storage period (months)	12	12 / 24 (alubag)	12	12

* elastic and deformable adhesives are recommended
** perform an application test

ATLAS ELASTIC GROUT

fine-aggregate cement grout (1–7 mm)

Among the cement grouts available on the market, it is distinguished by the exceptional smoothness of the surface.

Every room, every tile.
Resistant to dirt.
Resistant to mould and algae.
Very easy to apply.

It features **a very high scrubbing resistance.** The use of special polymer resins and combinations of fibres forming structural reinforcement gives it **incredible flexibility**. This prevents shrinkage cracks during the curing phase and dynamic and thermal stresses during use.

The grout also contains **biocides** that prevent the development of fungi, mould and algae.

The grout with limited water absorption ensuring **stain and discolouration resistance** makes the cladding particularly aesthetic and easy-to-clean.

fast colour

for floor heating

no cracks

for indoor and outdoor application

frost- and water-resistant

GROUTS

NEW!

PRODUCT	ATLAS CERAMIC GROUT	ATLAS ELASTIC GROUT	ATLAS DECORATIVE GROUT	ATLAS EPOXY GROUT
	fine-aggregate cement grout	fine-aggregate cement grout	decorative grout	two-component grout
Elasticity	yes	yes	yes	no
Structural and surface hydrophobicity	yes	yes	yes	n/a
TECHNICAL DATA				
Class	CG 2 WA	CG 2 WA	CG 2 WA	RG
Number of colours	40	26	5	12
Joint width (mm)	1 – 20	1 – 7	1 – 20	1 – 10
Application temperature (°C)	+5 ÷ +35	+5 ÷ +30	+5 ÷ +35	+5 ÷ +25
Binder	cement			epoxy resin
Amount of mixing water (l/kg)	0.24 ÷ 0.27	0.24 ÷ 0.27	0.24 ÷ 0.27	n/a
Curing time (min)	5			3
Pot life (min)	60	60***	60	45
Initial cleaning (min)	10 – 30			5
Final cleaning (h)	4 – 8	48	4 – 8	20
Foot traffic (h)	6 – 8	12	6 – 8	24
Full load (h)	24			24
Full chemical resistance (days)	n/a			7
Full mechanical resistance (days)	21			7
Final colour – obtained when the product is completely dry (days)	1	2 – 3	1	12 h
Full resistance to scrubbing and dirt (days)	21	21	21	7
Absorption of water after 30 min (g)	≤ 2*	≤ 2	≤ 2*	n/a
Absorption of water after 240 min (g)	≤ 5**	≤ 5	≤ 5**	≤ 0.1
Drinking water certificate of the PZH (Polish National Institute of Hygiene)	+	+		
Swimming pool certificate of the PZH (Polish National Institute of Hygiene)	+	+		
Public and health care facilities certificate of the PZH (Polish National Institute of Hygiene)	+	+	+	
Radiation Hygiene Certificate	+	+	+	
PACKAGING AND STORAGE				
Package size (kg)	2; 5	2; 5	2	2; 5
Type of packaging	alubag			bucket with 2 bags of component A and 2 packages of component B
Storage period (months)	24			24 (up to 30°C)

* the standard requirement is given, while the absorption value of ATLAS Ceramic Grout and ATLAS Decorative Grout after 30 minutes is 20 times lower than the standard value
** the standard requirement is given, while the absorption value of ATLAS Ceramic Grout and ATLAS Decorative Grout after 240 minutes is 25 times lower than the standard value
*** 90 after re-mixing

ATLAS CERAMIC GROUT

fine-aggregate cement grout (1-20 mm)

Possesses outstanding performance characteristics in comparison with the cement grouts available on the market.

Stain-resistant.
Easily washable.
Resistant to scrubbing.
Durable and uniform colour.

ATLAS Ceramic Grout contains polymer fibres for structural reinforcement and exceptional tightness. It can be scrubbed without causing cavities in the joint. It is resistant to detergents. It does not lose its properties even after repeated washing.

ATLAS Ceramic Grout is exceptionally easy to apply, clean and profile.
It is resistant to the efflorescence, cracks and micro-fissures. It ensures a uniform colour.

ATLAS CERAMIC GROUT guarantees comfort of work for contractors and the satisfaction of the users for years.

40 discolouration-resistant colours

easy to apply and profile

structurally reinforced with fibres

extremely hydrophobic
contains surface and structural hydrophobicisers

SILICONES

PRODUCT	ATLAS ELASTIC SANITARY SILICONE	ATLAS SANITARY SILICONE SILTON S
TECHNICAL DATA		
Curing system	acetoxy	
Ambient and substrate temperature during works (°C)	+5 ÷ +40	
Temperature resistance after curing (°C)	-50 ÷ +180	
Maximum joint width (mm)	4 – 25	
Maximum joint depth (mm)	14	
Consumption (m / depth 6 mm / 280 ml)	from 1.8 (width 25 mm) to 11 (width 4 mm)	
Pot life (min)	15	
Foot traffic (h)	3	
Full load (h)	24	
Number of colours	38 + colourless	
Colour durability	increased	standard
Can be used for grouting between two different types of material	+	
Myco Protect	yes	yes
Resistance to weather conditions	increased	standard
Drinking water certificate of the PZH (Polish National Institute of Hygiene)	+	-
Public and health care facilities certificate of the PZH (Polish National Institute of Hygiene) (indoor and outdoor)	+	+

2

waterproofing and accessories, primers

WATERPROOFING

NEW!




PRODUCT	ATLAS WODER DUO	ATLAS WODER E	ATLAS WODER W	ATLAS WODER SX
	elastic two-component waterproofing	fast-drying liquid foil	liquid foil	sealing mortar
TECHNICAL DATA				
Resistance to pressurised water (m of water column)	70	n/a		50
Resistance to water treatment agents, including chlorine	+	not resistant		+
Crack bridging up to (mm)	1	0.8	-	-
Min./max. coating thickness (mm)	2/3	1/3		3/5
Substrate temperature and ambient temperature during application (°C)	+8 ÷ +30	+5 ÷ +30		
Pot life (min)	60	whole shelf-life period		120
Open time / drying time (min)	30			
Application of the second layer after (h)	3	1	3	3
Protection against exposure to water / rain (h)	12	72		24
Laying of finishing coats (h)	12	2 – 4*	24	40
Loading with pressurised water after (days)	7	30		7
AREAS OF APPLICATION				
Indoor	+	+	+	+
Outside	+	+		+
Foundations, basement walls	+			+
Floor/wall heating	+		+	
Water tanks, pools	+			+
Terraces, balconies	+	+**		+**
Bathrooms, wetrooms	+	+	+	
Industrial kitchens	+	+		
Old, damp buildings – including heritage buildings	+			+
TYPE OF SUBSTRATE				
Cement and concrete screeds, lime-cement renders, concrete, cellular concrete, silicate	+	+	+	+
Anhydrite screeds, gypsum renders		+	+	
Drywall and OSB boards	+	+	+	+***
Galvanised metal sheet	+	+	+	
PACKAGING AND STORAGE				
Package size (kg)	set 32 or 16	2; 5; 15	4,5; 10	25
Type of packaging	Component A: paper bag 24 kg or 2x6 kg; B: 8 kg or 2x2 kg plastic container	plastic bucket		paper bag
Storage period (months)	12			
TYPE OF INSULATION AND CONSUMPTION (kg/m^2) DEPENDING ON THE COATING THICKNESS				
Light	for 2 mm coating – 3.0	for 1 mm coating – 1.0	for 1 mm coating – 1.0	for 1.4 mm coating – 2.25
Medium	for 2.5 mm coating – 3.7	for 2 mm coating – 2.0	n/a	for 2 mm coating – 3.0
Heavy	for 3 mm coating – 4.5	n/a		for 3 mm coating – min. 4.0

* light waterproofing – already after 2 hours, medium waterproofing – already after 4 hours
** only for balconies
*** only plasterboards

ATLAS WODER DUO

for balconies and terraces

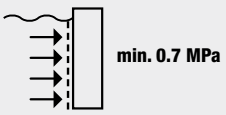
One product
– thousands of applications.

The only such comprehensive mineral insulation on the market – dozens of features and parameters confirmed by Polish Technical Assessment (*KOT*).

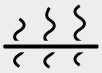
ATLAS WODER DUO is extremely waterproof with a minimum value of 0.7 MPa with a layer thickness of 2.5 mm. This corresponds to a pressure of 70 m water column and guarantees complete protection of the substrate and structure against impact of pressurized water.

That is why ATLAS WODER DUO has been used to insulate the deepest swimming pool in Europe* Deepspot, which in its part intended for divers is over 45 m deep.

*At the time of its launch, Deepspot was the deepest swimming pool in the world, now it is second to Deep Dive Dubai swimming pool for diving, which, however, is built in a different technology.



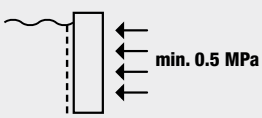
water tightness
(0.7 MPa = 70 m water column)



high vapour permeability
can be applied on damp substrates

chemical resistance
aggressive environments of class XA1 and XA2 acc. to PN-EN 206+A1:201

high elasticity
bridges cracks up to 1 mm wide



resistance to NEGATIVE water pressure
(0.5 MPa = 50 m water column)

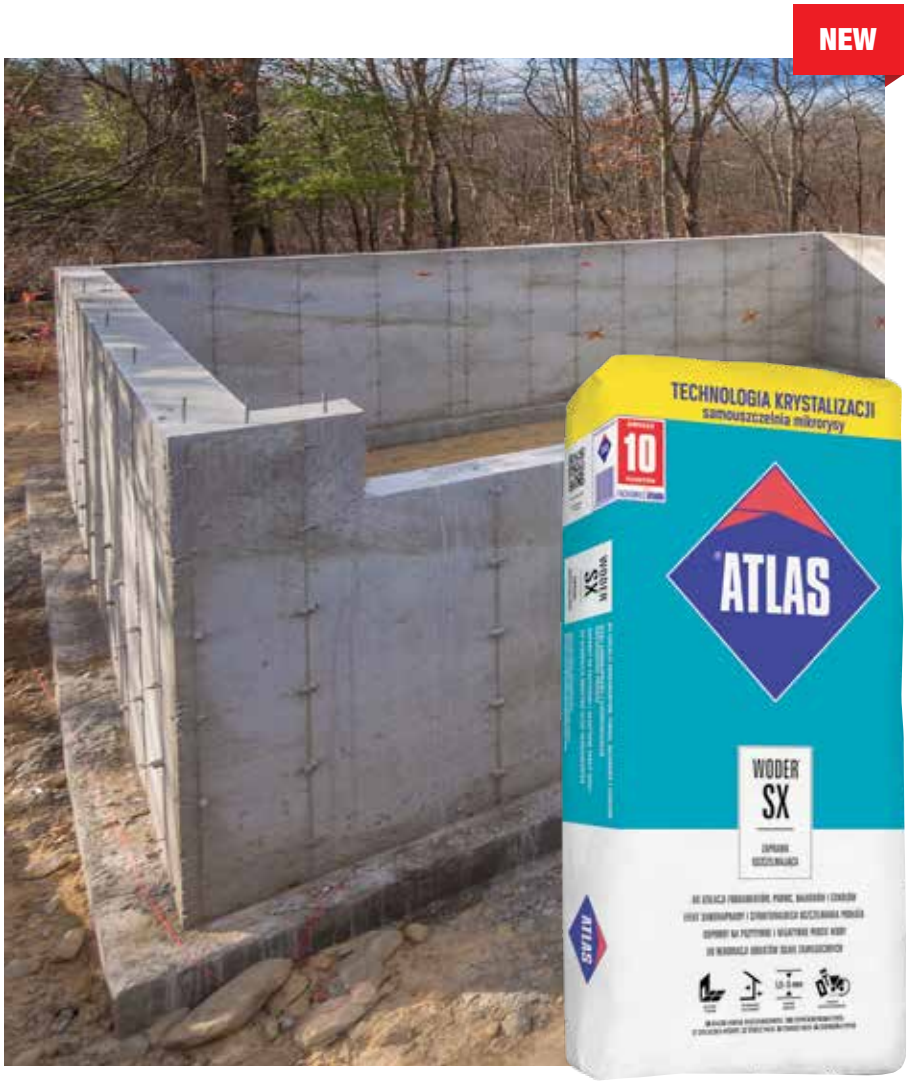
application temperature
substrate and ambient temperature during works from 8 °C to 30 °C

high mechanical resistance

resistance to weather conditions
UV radiation, frost

ATLAS WODER SX

single-component sealing mortar



For insulation of foundations, basements, balconies and plinths.

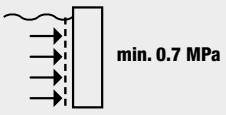
Self-healing effect and structural sealing of the substrate.

Resistant to positive and negative water pressure.

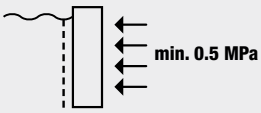
For renovation of highly damp structures.

Seals the concrete structure – thanks to the crystallization effect, the newly formed microcracks in the substrate, with a width up to 0.3 mm, are closed by water-insoluble salts.

The cracks are being gradually closed until they are completely filled. The process of closing cracks with salts takes 3 to 5 weeks. Consequently, water seepage is eliminated.

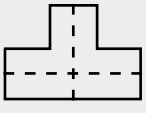


water tightness
(0.7 MPa = 70 m water column)



resistance to NEGATIVE water pressure
(0.5 MPa = 50 m water column)

application temperature
substrate and ambient temperature during works from 8 °C to 30 °C



tape embedding
(e.g. ATLAS HYDROBAND)

for walls and floors

for outdoor and indoor use

ATLAS WODER SX:
Resistant to positive and negative water pressure. Withstands a positive pressure of 70 m water column and a negative pressure of 50 m water column.

It has high adhesion to typical concrete substrates. min. 1.5 MPa

For any type of insulation:
light, medium, heavy.

Can be used as compound insulation under ceramic tiles.

Recommended for insulation of underground sections of buildings – foundations, basements, plinths, engineering structures, municipal sewage tanks and liquid manure tanks.

Can be used for insulation of building partitions in heritage buildings, also on surfaces contaminated with building salts. For external tanking of permanently damp structures.

chemical resistance
to sulphates, chlorides, nitrates

layer thickness

THE PROCESS OF CLOSING CRACKS BY SALT CRYSTALS

Active leak where the crack occurs in the substrate.

Gradual dampening of the insulating coating where the crack occurs.

The crack is being gradually closed by crystallizing salts, there is still a slight water seepage. Effect after 7 days.

The crack is closed by salt crystals, no water seepage.

PRIMERS AND CONTACT LAYERS

DIFFICULT SUBSTRATES: existing ceramic or stone tiles, varnishes for concrete, ground OSB, oil paint coats

CRITICAL SUBSTRATES: smooth-floated or surface-hardened concrete floors, existing terrazzo floors, plastic substrates, metal substrates, gypsum fibre boards, OSB, wood-based boards, wooden floors (including varnished wooden floors), stone and ceramic board floors, prefabricated reinforced concrete elements, monolithic elements formed in formwork

for porous substrates (for screeds, adhesives, renders, finishing coats, paints and wallpapers)

for non-porous substrates (for screeds, renders, finishing coats, adhesives)

PIGMENT WORK PROGRESS CONTROL

GEL CONSISNTENCY NO DRIP

DIFFICULT SUBSTRATES

DIFFICULT AND CRITICAL SUBSTRATES

CONCENTRATE

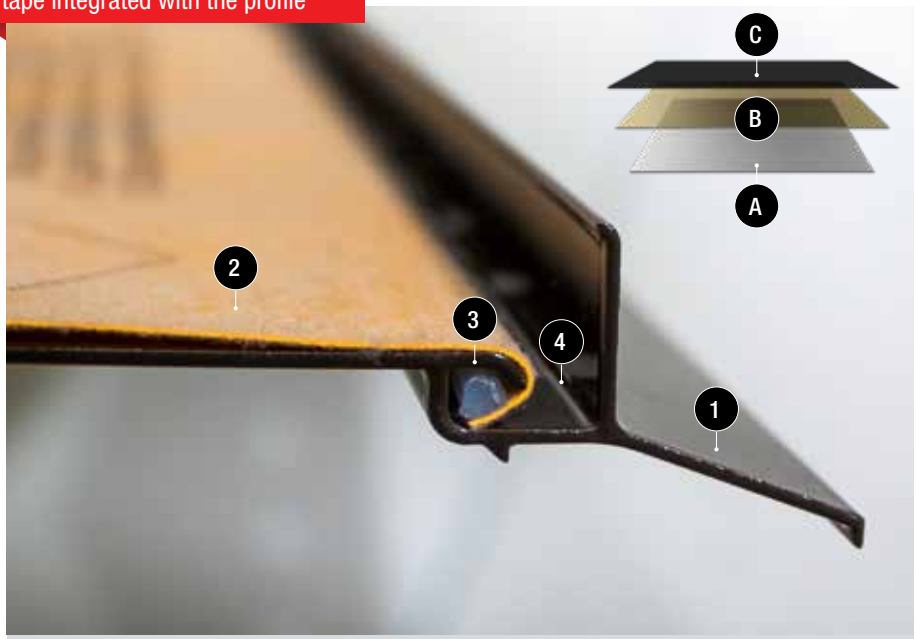
PRODUCT	ATLAS UNI-GRUNT ULTRA	ATLAS UNI-GRUNT	ATLAS NKP	ATLAS GRUNTO-PLAST	ATLAS ULTRAGRUNT
	deep penetrating primer	fast-drying priming emulsion	deep penetrating primer	bonding layer for difficult substrates	fast-drying primer for critical substrates
PROPERTIES					
Colour	green	transparent, blue	white	white	yellow
Deep penetrating	+	+	++	forms a bonding layer with the substrate	
Strengthens the substrate	surface and structure	surface and structure	surface and structure		
Accelerated drying	+	+	+		+
Evens out and reduces the substrate absorptivity	+	+	+	forms a bonding layer with the substrate	
Binds loose particles	+	+	+	+	+
Increases paint efficiency	+	+	+	n/a	
VOC value lowered in relation to the requirements*	16 times reduced	15 times reduced	30 times reduced		
TECHNICAL DATA					
Density (g/cm³)	1.0			1.5	
Application temperature (°C)	+5 ÷ +30		+5 ÷ +35	+5 ÷ +30	+5 ÷ +35
Application tool: roller	+	+	+	+	+
Application tool: brush	+	+	+	+	+
Application tool: sprayer	+	+	+	-	
Dilution	1:3 (screeds) 1:6 (renders, thermal insulation) 1:8 (paints, wallpaper)	ready to use (screeds) 1:1 (renders) 1:3 (paints, wallpaper)	ready to use	ready to use	
Further work can be continued after 15 min	15 min (rendering and tiling) 2 h (self-levelling floor screeds, paints, wallpaper and thermal insulation)			24 h	4 h**
Consumption (kg/m²)	0.10 (floors) 0.04 (renders, thermal insulation) 0.03 (paints, wallpaper)	0.05 – 0.20		0.3	
TYPES OF SURFACES					
Cement floors and screeds	+	+	+	+	+
Anhydrite screeds	+	+	+	+	+
Cement and cement-lime renders	+	+	+	+	+
Gypsum renders	+	+	+	+	
Finishing coats	+	+	+	n/a	
Plasterboard	+	+	+	+	+
Cellular concrete wall	+	+	+	+	+
Brick or silicate block wall	+	+	+	+	+
Brick or ceramic hollow brick wall	+	+	+	+	+
Gypsum block wall	+	+	+	+	+
Monolithic concrete structures	+	+	+	++	++
Acrylic and latex interior paint coats	+			+	++
Renovated substrates covered with finishing coats	+		+	++	++
PACKAGING AND STORAGE					
Package size (kg)	4	1; 5; 10	5	2; 5	5; 15
Type of packaging	plastic canister			plastic bucket	
Storage period (months)	18	12		12	

* acc. to the requirements, the safe value in relation to the resin content is VOC < 30 g/dm³
** 24 hours for terrazzo

ALUMINIUM DRIP PROFILES

for balconies and terraces

INNOVATIVE SOLUTION
tape integrated with the profile



ATLAS 102 DRIP PROFILE

1. PROFILED DRIP

- to drain water outside wall surface
- resistant to weather conditions

2. BUILT-IN TAPE ATLAS HYDROBAND 3G

- ensures complete tightness and easy connection with the insulation under the tiles
- accelerates the profile assembly

3. SILICONE SLIDE

- ensures complete tightness at the joint between the tape and the profile
- secures the tape in the profile
- enables the tape to be moved along the profile, facilitates installation

4. SHAPED THRESHOLD FOR ROUND CORD

- round cord included in the set allows the floor covering to work properly

ATLAS DRIP PROFILES

triple anti-corrosion protection obtained by:

A pickling of the aluminium profile

B application of a chromium passivation layer

C application of a top-quality polyester powder coating, cured at 190°C

An innovative balcony and terrace drip sealing system, resistant to highly alkaline environments: insulating mortars and coatings, UV radiation and mechanical damage.

ATLAS drip profiles are easy and quick to install and guarantee long-term durability.

They are manufactured in three standard colours:

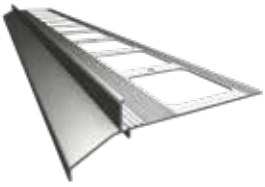
GREY **RAL 7037** | GRAPHITE **RAL 7024** | BROWN **RAL 8019**

other colours available on request

ATLAS ALUMINIUM DRIP PROFILES FOR BALCONIES AND TERRACES

ATLAS 102
Profile with built-in ATLAS HYDROBAND 3G tape, recommended for balcony and terrace drainag

ATLAS 50
Standard profile recommended for balcony drainage



ATLAS 100
Profile recommended for balcony and terrace drainage

ATLAS 150
Profile recommended for balcony and terrace drainage with the possibility of gutter installation

PICK ACRYLIC PRIMER ATLAS UNI-GRUNT

and witness the difference

- **dry after 15 minutes**
- **multi-purpose**
- **bestseller**
- **shelf life: 12 months**
- **available units: 1 kg, 5 kg or 10 kg**

WHY?		BENEFITS
To provide good quality substrate (of even properties) ▪ especially if the sustrate is made out of two materials of different properties, stained or of several colours	→	▪ **smooth finish** ▪ **even colour** ▪ **easy application of following product**
To reduce consumption of subsequent layer ▪ for porous substrates	→	▪ **cost reduction**
To secure good binding conditions for finishing layer ▪ for porous substrates and when subsequent layer needs binding water	→	▪ **safety** ▪ **longevity** ▪ **durability of finished job**

ACRYLIC PRIMERS: do's and dont's

- dilute the primer as recommended on the packaging to avoid overpriming
- acrylic primer must be dry before application of the subsequent layer
- remove dust or peeling paint/plaster ahead of priming

3

Screeds and floors

SELF-LEVELLING SCREEDS

	ANHYDRITE			CEMENT		
						NEW!
						
PRODUCT	**ATLAS SAM 100**	**ATLAS SAM 200**	**ATLAS SAM 500**	**ATLAS SMS 15**	**ATLAS SMS 30**	**ATLAS SMS 80**
	fast-setting, self-levelling floor screed	self-levelling floor screed	fast-setting, self-levelling floor screed	fast-setting, self-levelling joint compound	fast-setting, self-levelling floor screed	self-levelling floor screed
Classification	CA-C35-F6	CA-C16-F5	CA-C20-F4	CT-C25-F7	CT-C30-F7	CT-C20-F5
TECHNICAL DATA						
Compressive strength (N/mm^2)	35	16	20	25	30	20
Flexural strength (N/mm^2)	6	5	4	7	7	5
Layer thickness (mm)	5 – 30	25 – 60	20 – 60	1 – 15	3 – 30	25 – 80
Linear shrinkage (%)	0.03	0.03	0.05	0.06	0.06	0.06
Substrate temperature and ambient temperature during application (°C)	+5 ÷ +25			+5 ÷ +25		
Mixing ratio with water (l/25 kg)	5.0 – 5.5	4.25 – 4.75	5.0 – 5.25	5.0 – 5.25	5.0 – 5.5	4.0 – 4.5
Consumption (kg/1 cm thick/m^2)	20	20	18	16.6	16.5	18
Foot traffic (h)	6	16	6	3	3	16
Start of the screed heating* (weeks)	-	4	1	-	-	6
TYPE OF SCREED / FUNCTION IN THE FLOOR STRUCTURE						
Bonded	+	+	+	+	+	+
Screed on a separation layer		+	+			+
Floating		+	+			+
With floor heating		+	+			+
AREAS OF APPLICATION						
Indoor – dry	+	+	+	+	+	+
Indoor – wet				+	+	+
APPLICATION						
Manual application	+	+	+	+	+	+
Mechanical: mixing pump	+	+	+	+	+	+
PACKAGING AND STORAGE						
Package size (kg)	25			25		
Type of packaging	foil		stream air *paper bag*	foil		
Storage period (months)	9		9	9		

* under standard conditions

ATLAS SMS 80

cement-based self-levelling screed

Layer thickness 25 to 80 mm.

Pot life: 45 minutes

Manual and machine application

For dry and wet rooms.

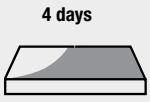
SMS 80 is recommended for laying new and renovating old screeds. It can be applied as:

- levelling layer bonded to the substrate: thickness 25-80 mm – substrate is concrete, cement-based screed, anhydrite-based screed,
- self-supporting screed on a separating layer: thickness 35-80 mm, when the substrate is of poor quality and does not ensure proper adhesion floating screed: thickness 40-80 mm – laid on thermal or sound insulation screed with underfloor heating: thickness 40-80 mm, the thickness over the heating layer should be at least 35 mm.

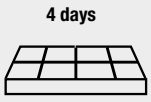
ATLAS SMS 80 screed can be finished with ceramic, stone and composite tiles, laminate flooring, floor coverings of any kind, epoxy floors.

It is possible to walk on the screed after 16 hours. It creates a smooth, perfectly levelled surface without laitance (bleed water).

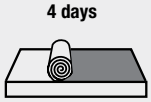
foot traffic after 16 h



installation of waterproofing

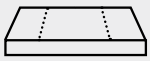


laying of ceramic tiles



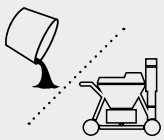
laying of PVC flooring and laminate flooring

can be used in higher humidity



self-levelling

perfectly levelled surface



manual and machine application

for screeds with underfloor heating

CEMENT-BASED SCREEDS

viscous

THE FIRST ETA DOCUMENT IN EUROPE
THAT ALLOWS INDOOR AND OUTDOOR APPLICATION

PRODUCT	ATLAS POSTAR 10	ATLAS POSTAR 20	ATLAS POSTAR 60	ATLAS POSTAR 80	ATLAS POSTAR 100
	traditional cement floor	fast-drying cement screed	express cement floor	rapid set cement floor	self-levelling cement floor
Classification	CT-C25-F5-A12	CT-C20-F4	CT-C30-F5-A9	CT-C40-F7-A9	CT-C50-F7-A15
TECHNICAL DATA					
Compressive strength (N/mm²)	25	20	30	40	50
Flexural strength (N/mm²)	5	4	5	7	7
Abrasion resistance acc. to Böhme (cm³/50 cm²)	12	n/a	9	9	15
Layer thickness (mm)	10 – 100	10 – 80	10 – 100	10 – 80	10 – 80
Linear shrinkage (%)	0.06	0.06	0.06	0.06	0,06
Substrate temperature and ambient temperature during application (°C)	+5 ÷ +25	+5 ÷ +30			
Mixing ratio with water (l/25 kg)	2.25 – 3.0	1.75 – 2.75	1.75 – 2.25	1.5 – 2.0	3,25 – 3,75
Consumption (kg/1 cm thick/m²)	20	20	20	20	20
Foot traffic (h)	24	24	6	3	24
Start of the screed heating (days)	21 days after laying the screed (room temperature above +15°C); 35 days after laying the screed (room temperature +5°C ÷ +15°C);				
TYPE OF SCREED / FUNCTION IN THE FLOOR STRUCTURE					
Bonded	+	+	+	+	+
Screed on a separation layer	+	+	+	+	+
Floating	+	+	+	+	+
With floor heating	+	+	+	+	+
AREAS OF APPLICATION					
Indoor – dry	+	+	+	+	+
Indoor – wet	+	+	+	+	+
Outdoor	+	+	+	+	+
APPLICATION					
Manual application	+	+	+	+	+
Mechanical application: mixing pump	no				
PACKAGING AND STORAGE					
Package size (kg)	25				
Type of packaging	paper bag				
Storage period (months)	12				

ATLAS POSTAR 60

express cement floor

- Foot traffic after 6 hours*
- Ready for tiling after 6 hours*
- For rooms with heavily loaded floors, including rooms with vehicle traffic.
- Screed for application under parquet, tiles, panels.

Express screed with a thickness of 10-100 mm. Recommended for laying new and repairing old screeds. Can be uses as:
- bonded screed, screed on a separating layer, screed on thermal insulation (floating screed),
- screed with floor heating (no elasticising additives required, good thermal conductivity).

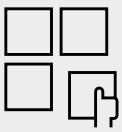
Accelerates finishing works with floor coverings made of stone, wood, cork, engineered wood, carpet or PVC. Can serve as flooring.

Ideal for repairs and shaping gradients, for pressure layers on balconies and terraces, for staircase superstructures and for reprofiling driveway gradients.

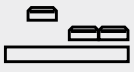
Approved for indoor **and** outdoor **use** by the new document ETA 20/0547. Not only in Poland, but also in Europe!

*recommended time for a layer with a thickness of 10-30 mm, tested in laboratory conditions; recommended curing time depends on the thickness of the layer – see table on page 30.

foot traffic after 6 h



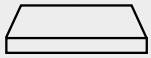
ready for tiling already after 6 hours*



laying of floorboards, panels and parquet after only 36 hours*

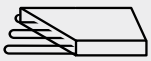
high compressive strength

staircase superstructure



ensures a smooth surface

reduces cracking



for floor heating

TECHNOLOGY FOR LAYING SCREEDS AND FLOORS

TRADITIONAL CEMENT SCREEDS

In order to obtain even screed or floor surfaces, we recommend the use of screed rails. The rails should be fixed so that they correspond to the planned thickness of the floor or screed and that the thickness of the floor or screed will be in no place less than the minimum required for the given structural system (bonded screed, screed on a separating layer, floating screed).

In order to thicken the material and to distribute it more precisely, vibrate it with a screed board or hit it with a trowel until water appears on the surface (so-called sweating). Freshly laid screeds or floors must be protected from: drying too quickly, direct sunlight, low air humidity, draughts.

EXPANSION JOINTS

Cement screeds must be separated from the walls and other elements (e.g. pillars) with an expansion joint made of elastic foam with a minimum thickness of 7 mm. Expansion joint should be made at the junction of heated and unheated areas. T-shaped expansion joints should be made at sharp wall corners. They can be made by cutting the screed after its initial setting. Expansions joints at room thresholds must be made at both edges of the walls.

The sizes of the work sections and the proportions of the sides of the rooms

Screed	Maximum size of expansion areas		Maximum length of field edge	
	Indoor	Outdoor	Indoor	Outdoor
POSTAR 10 **POSTAR 20** **POSTAR 60** **POSTAR 80** POSTAR 100	**36 m²**	**25 m²**	**6 m**	**3 m**

The proportion of the sides of the work section for screeds laid indoor and outdoor is 2:1

CARE OF TRADITIONAL CEMENT SCREEDS

In order to ensure favourable setting conditions for the mortar, depending on the needs, sprinkle the newly-made surface with water or cover it with foil. Appropriate care is a basic condition for obtaining the declared product parameters. The drying time of the screed or floor depends on its type, the layer thickness and thermal and humidity conditions of the surroundings (recommended curing times for ATLAS screeds or floors are given on page 30).

A screed can serve as a floor, if it possesses the required abrasion resistance. The abrasion resistance class must be chosen depending on the conditions of use.

Putting underfloor heating into operation

The heating of the traditional cement screeds can be started 21 days after application, if the room temperature during the screed application and curing is above 15 °C. For temperature range of 5-15 °C, the heating can be started after 36 days.

When heating the screed, please observe the following rules:

- For the first two days the maximum water temperature in the system must not be more than 5°C above the room temperature and not more than 20 °C.
- In intervals of 2 days the water temperature can be increased by 5 °C until the maximum water temperature is reached, but not to more than 50 °C.
- Maintain the maximum water temperature for no more than 4 days. Then proceed to cool the screed to the water temperature in the system of 20 °C, reducing the temperature by 5 °C at intervals of 2 days.
- You can proceed to lay finishing coats 2 days after the screed has cooled down.

CRITICAL VALUES OF STRUCTURAL HUMIDITY

FOR CEMENT-BASED SCREEDS

- **less than 4%**: ceramic or stone tiles, epoxy floors, mineral waterproofing
- **less than 2%**: panels, fitted carpets and PVC panels, parquet, laminate flooring, dispersion waterproofing

CEMENT-BASED AND ANHYDRITE-BASED SELF-LEVELLING SCREEDS

Self-levelling screeds can be applied manually and mechanically.

MANUAL APPLICATION

When preparing the screeds for manual application, a slow-speed mixer or a concrete mixer can be used. Mix the material until homogeneous. Check the proper consistency by pouring the mortar from a 1 litre container onto even non-absorbent surface (e.g. foil). It should form a "pat" with a diameter according to the table.

MACHINE APPLICATION

For the machine application of self-levelling floor screeds you can use typical mixing pumps as they are used, for example, for laying gypsum renders.

Adjustment of a rendering machine for mechanical application:

- To apply a thin layer of self-levelling screed (**up to 30 mm**) on surfaces of maximum 100 m^2, it is not necessary to retool the machine – a standard pump and a smaller hose diameter will ensure sufficient capacity. You only need to disconnect the compressor and render spray gun – the material is compressed by the pump and poured directly through the hose onto the floor.
- To apply thicker layers (**above 30 mm**), use a pump with a capacity of 35 l / min. and feeding hoses with a diameter of 35 mm. The larger pump and thicker hose will ensure an optimal capacity of the machine.

Check the proper consistency by pouring 1 litre of the mortar (see photos under the table).

Type of screed	Diameter of 1 litre of mortar (cm)
Anhydrite screeds	45-50
Cement screeds SMS 15, SMS 30	50-55
Cement screed SMS 80	45-50

EXPANSION JOINTS

Perimeter expansion joints along room walls should be made of flexible foam with a minimum thickness of 7 mm. Around pillars, pipes, columns and other elements, the perimeter expansion joints should be made of at least double foam with a minimum thickness of 7 mm. In screeds with underfloor heating, make expansion joints for each heating circuit that can be activated separately. Expansion joint should be made at the junction of heated and unheated areas. In the case of self-levelling screeds, the expansion joints of pillars, pipes and columns should be made using at least double expansion joint strips. T-shaped expansion joints should be made at sharp wall corners. They can be made by cutting the screed after its initial setting. Expansions joints at room thresholds must be made at both edges of the walls. For all anhydrite-based screeds the maximum size of an expansion area is 50 m^2, with a diagonal not exceeding 10 m.

Cement-based self-levelling screeds

Screed	Type of screed	Maximum size expansion areas	Maximum length of field edge
SMS 15 SMS 30	bonded	36 m^2	6 m
SMS 80	bonded	36 m^2	8 m
	on a separating layer, floating, with floor heating	25 m^2	6 m

CARE OF THE SELF-LEVELLING SCREEDS

The optimal curing temperature for self-levelling screeds is 10-25°C.During application and curing of self-levelling screeds, windows and glazed external doors should be covered with dark foil to protect the screeds from direct sunlight. After applying the screed, protect the rooms against draughts for at least 3 days. Central heating and air conditioning should be turned off during screed curing. Do not use air heaters or air dryers.

Putting underfloor heating into operation

SAM 200 – 28 days, SAM 500, SMS 80 – 42 days.

When heating the screed, please observe the following rules:

- For the first two days the maximum water temperature in the system must not be more than 5°C above the room temperature and not more than 20 °C.
- In intervals of 2 days the water temperature can be increased by 5 °C until the maximum water temperature is reached, but not to more than 50 °C.
- Maintain the maximum water temperature for no more than 4 days. Then proceed to cool the screed to the water temperature in the system of 20 °C, reducing the temperature by 5 °C at intervals of 2 days.
- You can proceed to lay finishing coats 2 days after the screed has cooled down.

FINISHING WORK

CEMENT-BASED SCREEDS

ATLAS PRODUCT	LAYER THICKNESS (mm)	TYPE OF FLOOR COVERING AFTER TIME (DAYS)					
		MAX. WET MASS IN A CROSS-SECTION OF 4% (CM)			MAX. WET MASS IN A CROSS-SECTION OF 2% (CM)		
		CERAMIC TILES	EPOXY FLOOR	MINERAL-BASED WATERPROOFING SLURRY	PARQUET	PVC FLOORING, CARPET FLOORING, LAMINATE FLOORING	DISPERSION WATERPROOFING
SMS 15	1 – 5	8 h			12 h		
	6 – 15				24 h		
SMS 30	3 – 5	18 h			24 h		
	6 – 10	2			4		
	11 – 20	3			5		
	21 – 30	4			6		
SMS 80	25 – 40	4			n/a	9	
	41 – 60	6				14	
	61 – 80	9				21	
POSTAR 10	10 – 30	1,5			3		
	31 – 50	3			5		
	51 – 100	9			16		
POSTAR 20	10 – 30	1			n/a	3	
	31 – 50	2				4	
	51 – 80	5				12	
POSTAR 60	10 – 30	6 h			1,5		
	31 – 50	12 h			2		
	51 – 100	40 h			7		
POSTAR 80	10 – 30	3 h			12 h		
	31 – 50	6 h			1		
	51 – 80	18 h			3		
POSTAR 100	10 – 80	21			21-28		

ANHYDRITE-BASED SCREEDS

ATLAS PRODUCT	LAYER THICKNESS (mm)	TYPE OF FLOOR COVERING AFTER TIME (DAYS)			
		MAX. WET MASS IN A CROSS-SECTION OF 1% (CM)	MAX. WET MASS IN A CROSS-SECTION OF 0.5% (CM)		
		CERAMIC TILES	PARQUET	PVC FLOORING, CARPET FLOORING, LAMINATE FLOORING	DISPERSION WATERPROOFING
SAM 100	5 – 30	4	21*	7	
SAM 200	25 – 40	10	n/a	10	
	41 – 60	21		21	
SAM 500	20 – 40	4		7	
	41 – 60	7		18	

* longer curing time is used in order to obtain the screed's compression strength required for application under parquet

ATTENTION! For anhydrite-based screeds with underfloor heating, the wet mass in a cross-section should not exceed 0.3% for each type of floor covering.

WHEN CAN YOU APPLY THE NEXT LAYER OF SCREED ON THE PREVIOUSLY APPLIED LAYER OF SCREED?

SUBSTRATE	NEXT LAYER SCREED	PRIMING	APPLICATION OF THE NEXT LAYER (h)
SMS 15 and SMS 30	SMS 15 or SMS 30	Uni-Grunt or Uni-Grunt ULTRA diluted with water 1 : 3	after 24
SMS 80	SMS 15 or SMS 30 or SMS 80	Uni-Grunt or Uni-Grunt ULTRA diluted with water 1 : 3	25-40 mm / after 4 days
			41-60 mm / after 6 days
			61-80 mm / after 9 days
POSTAR 10	SMS 15 or SMS 30	Uni-Grunt or Uni-Grunt ULTRA diluted with water 1 : 3	after 72
	Postar 10, 20, 60, 80	Apply Adher S on matt damp substrate	after 24
POSTAR 20	SMS 15 or SMS 30	Uni-Grunt or Uni-Grunt ULTRA diluted with water 1 : 3	after 48
	Postar 10, 20, 60, 80	Apply Adher S on matt damp substrate	after 24
POSTAR 60	SMS 15 or SMS 30	Uni-Grunt or Uni-Grunt ULTRA diluted with water 1 : 3	after 24
	Postar 10, 20, 60, 80	Apply Adher S on matt damp substrate	after 6
POSTAR 80	SMS 15 or SMS 30	Uni-Grunt or Uni-Grunt ULTRA diluted with water 1 : 3	after 12
	Postar 10, 20, 60, 80	Apply Adher S on matt damp substrate	after 3

4

construction mortars

MASONRY MORTARS

POINTING MORTAR

PRODUCT		ATLAS MASONRY MORTAR	ATLAS MASONRY MORTAR M10	ATLAS KB-15	ATLAS MASONRY MORTAR FOR CLINKER	ATLAS SILMUR M5/M7,5/M10/ M15
		traditional masonry mortar	traditional masonry mortar	thin-layer grey masonry mortar	masonry mortar with trass	masonry mortars for silicate elements
Type of mortar*		G	G	T	G	T
Colour		grey	grey	grey	beige, dark brown, grey, graphite grey, anthracite	grey or white
TECHNICAL DATA						
Compressive strength (N/mm²)		≥ 5.0	≥ 10.0	≥ 5.0	≥ 5.0	≥ 5.0 / ≥7.5 / ≥10.0 / ≥15.0
Joint thickness (mm)		6 – 40	6 – 40	2 – 10	6 – 40	2 – 10
Preparation and application temperature (°C)		+5 ÷ +30	+5 ÷ +30	+5 ÷ +30	+5 ÷ +30	+5 ÷ +30 0 ÷ +30**
Mixing ratios with water (l/25kg)		3 – 3.5	3 – 3.5	5.25 – 6.0	2.5 – 30 bricklaying 2.0 grouting	5.0 – 6.0
Pot life (h)		4	4	4	3	4
Adjustability time (min)		bd	bd	10	bd	10
YIELD OF A 25 KG bag (JOINT THICKNESS)						
WALL THICKNESS	12 cm (1/2-brick)	0.63 m² (1 cm)	0.63 m² (1 cm)	6.2 m² (3 mm)	0.73 m² (1 cm)	12.5 m² (2 mm)
	18 cm			4.2 m² (3 mm)	0.62 m² (1.2 cm)	8.3 m² (2 mm)
	24 cm (1 brick)	0.25 m² (1 cm)	0.25 m² (1 cm)	3.1 m² (3 mm)	n/a	6.2 m² (2 mm)
	30 cm			2.5 m² (3 mm)	n/a	5.0 m² (2 mm)
	36 cm			2.1 m² (3 mm)	n/a	4.2 m² (2 mm)
TYPE OF WALL MATERIAL						
Ceramic		+	+		+	
Clinker					+	
Sand-lime bricks		+	+			+
Concrete		+	+			
Cellular concrete		+	+	+		+***
INTENDED USE						
Thick joints		+	+		+****	
Thin joints				+		+
PACKAGING AND STORAGE						
Package size (kg)		25				
Type of packaging		paper bag				
Storage period (months)		12				

* classification of masonry mortars acc. to standards – see page 78
** applies to M15 mortars
*** does not apply to M15 mortars
**** possibility of grouting

RENDERING MORTARS

PRODUCT	ATLAS CEMENT BASE COAT	ATLAS PLASTERING MIX	ATLAS LIGHT MACHINE RENDER	ATLAS REKORD
	bonding layer for traditional renders	traditional cement render cat. III	lime-cement render cat. III	white cement top coat
Type of mortar*	GP	GP	LW	OC
Function of the mortar	bonding layer	two-layer render	render	filler, finishing coat
Colour	grey	grey	grey	white
TECHNICAL SPECIFICATION				
Layer thickness (mm)	approx. 4	6 – 30	5 – 30	1 – 10
Preparation and application temperature (°C)	+5 ÷ +25	+5 ÷ +30	+5 ÷ +30	+5 ÷ +25
Mixing ratios – amount of water per packaging (l)	6.5	3.25 – 4.0	6.0 – 7.8	7.0 – 8.0
Pot life (h)	2	4	2	2
Consumption in kg per 1 m^2 per 1 cm thickness	8 kg/m^2	18.5	14	15 (1.5 per 1 mm thickness)
APPLICATION METHOD				
Manual	+	+		+
Machine	+	+***	+	
AREAS OF APPLICATION				
Indoor	+	+	+	+
Outdoor	+	+		+**
TYPE OF SUBSTRATE				
Ceramic	+	+	+	
Cellular concrete	+	+	+	+
Silicate	+	+	+	+
Concrete	+	+	+	+
PACKAGING AND STORAGE				
Package size (kg)	30	25; 30 kg	30	25
Type of packaging	paper bag			
Storage period (months)	12			

* classification of rendering mortars acc. to standard – see p. 78
** only in a multi-layer rendering system, as a final layer, e.g. to achieve a uniform façade texture
*** 2 versions – manual and machine application, manual – 30 kg

REPAIR AND ASSEMBLY MORTARS

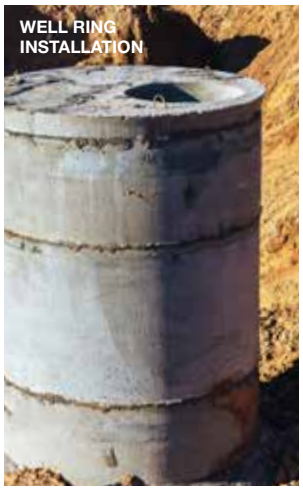
ONE COAT APPLICATION

PRODUCT	ATLAS ZW 330*	ATLAS TEN-10	ATLAS MONTER T-5			ATLAS MONTER T-15	
	fast-setting levelling mortar	fast-setting cement mortar	fast-setting assembly mortar			fast-setting assembly mortar	
TECHNICAL DATA							
Compressive strength (N/mm²)	≥ 20.0	≥40.0	after 1 h after 3 h after 6 h after 24 h after 28 days	without sand ≥ 10 ≥ 12 ≥ 15 ≥ 20 ≥ 44	with the addition of sand ≥ 8 ≥ 10 ≥ 12 ≥ 16 ≥ 38	after 6 h after 24 h after 28 days	≥ 25 ≥ 35 ≥ 70
Flexural strength (N/mm²)	≥4.0	≥7.0		≥ 9	≥ 7.5	≥ 7.5	
Shear strength (N/mm²)				≥ 10.5	≥ 9.5		
Application temperature (°C)	+5 ÷ +25	+5 ÷ +30					
Mixing ratios with water (l/kg)	0.17 – 0.22	0.12 – 0.15	approx. 0.25			0.12 – 0.13	
Layer thickness min. / max. (mm)	3/30**	5/30	1/25***			20/50	
Pot life (min)	120	40	5			15	
Open time (min)	20	40	5			15	
Consumption	15 kg / m² / 10 mm thickness	20 kg / m² / 10 mm thickness	1.8 kg per 1 dm³ filling			2.0 kg per 1 dm³ filling	
Laying tiles / subsequent works (h)	5 (5 mm thickness)	24	n/a			n/a	
Foot traffic / use (h)	8	3	n/a			0.5	
AREAS OF APPLICATION							
Indoor and outdoor walls	+	+	+				
Indoor and outdoor floors	+	+	+			+	
TYPE OF APPLICATION							
Local surface repair	+	+	+			+	
Repair of large floor surfaces	+	+					
Installation and anchoring of elements			+			+	
Sealing of local water leaks			+				
TYPE OF DAMAGE TO BE REPAIRED							
Cracks	+	+	+			+	
Deeper cavities	+	+	+			+	
PACKAGING AND STORAGE							
Package size (kg)	25	25	5; 25			25	
Type of packaging	paper bag	paper bag	alubag / paper bag			paper bag	
Storage period (months)	12						

* the product can be used to make floor screeds
** to obtain a thicker layer (from 31 to 60 mm), add quartz sand (grain size up to 2 mm) at a ratio of 1:4 by weight (quartz sand : dry mortar)
*** for layer thicknesses of over 25 mm, mix MONTER T-5 with quartz sand at a ratio of 1:1

ATLAS MONTER T-5

fast-setting assembly mortar



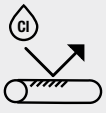
Universal and fast-setting assembly mortar ATLAS Monter T-5 is the most thoroughly tested product on the assembly mortar market (a wide range of tests is confirmed by the KOT document)

Examples of application:

- installation of posts and railings, installation of brackets for mounting clamps and lightning protection systems,
  fixing brackets for sanitary whiteware and sewage pipes,
  installation of floor drains and linear drains,
  quick installation of plastic elements of the electrical system, installation of ventilation grilles, pipes,
  non-structural repairs of prefabricated elements,
  filling cracks, cavities in floors and walls, repairing stairs,
- filleting temporary sealing of local leaks – "wet earth" consistency,
- installation and sealing of gullies and concrete well rings.

full load already after 10 minutes

extremely fast increase in strength



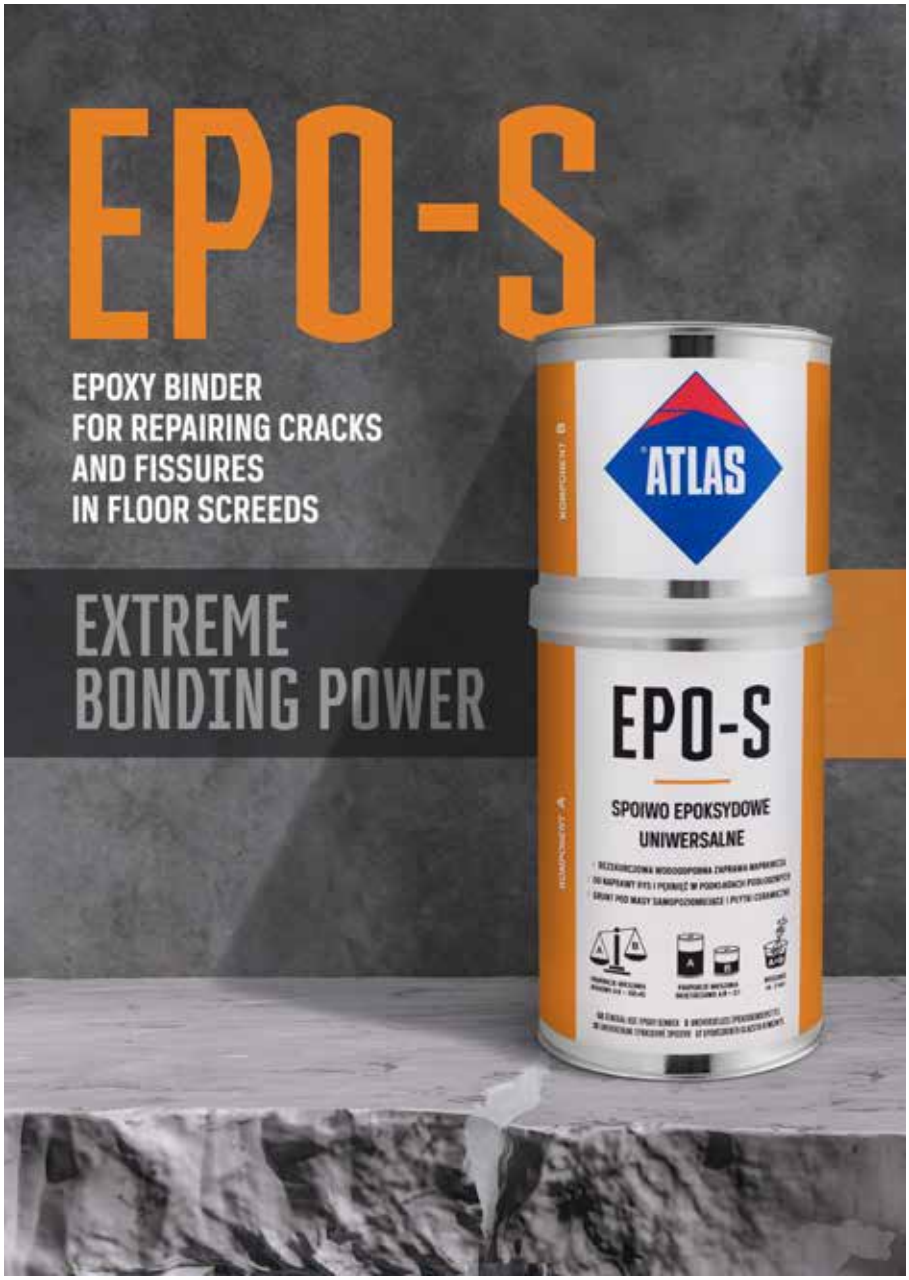
does not cause chloride corrosion of metal elements

fills cavities up to 40 mm

– up to 25 mm without the addition of sand
– from 25 to 40 mm with sand

ATLAS EPO- S

universal epoxy binder



shrinkage-free bonding

chemical resistance

65 MPa

high strength

high adhesive strength

Universal epoxy binder for many applications:

– as **an epoxy resin**,
– after adding quartz sand it forms **an epoxy mortar**, the consistency of which can be freely shaped depending on the amount and fraction of quartz sand.

Shrinkage-free bonding
due to its high strength it is used, among others, **for repairing cracks and fissures** in cement and anhydrite screeds.

Extremely high strength and chemical resistance
ATLAS EPO-S as an epoxy binder with very high strength parameters (compression strength up to 65 MPa, bending strength 20 MPa) is recommended, among others, for:
– repairing defects in concrete,
– reinforced concrete elements,
– industrial floors,
– rebuilding corners,
– embedding pipe elements.

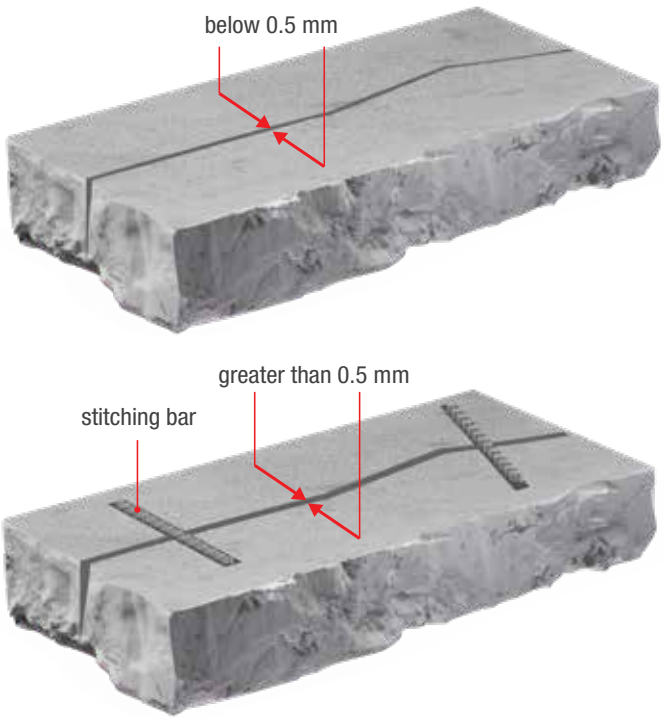
Very high adhesion, perfect bonding layer
The binder with particularly high adhesion is used together with quartz sand for making bonding layers:
– under self-levelling compounds,
– under ceramic tiles,
– for filleting,
– as a bonding layer for critical substrates,
– directly on ceramic and stone tiles in large format over 2 m^2.

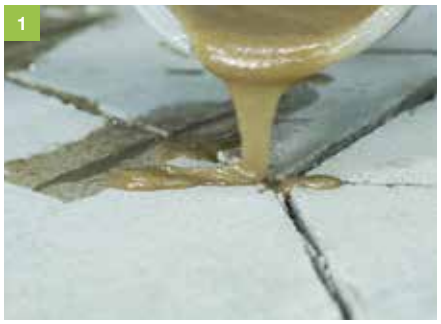
REPAIR OF CRACKS IN SCREEDS

Cracks up to 0.5 mm wide
Fill the cleaned cracks with ATLAS EPO-S binder.

Cracks with a width greater than 0.5 mm
Cracks should be filled with the binder mixed with dry quartz sand (1). In addition, the cracks must be provided with suitable reinforcement, stitching bars (2) (special tin plates or carpentry nails intended for this purpose).

The binder should be evenly distributed in scratches and cracks (3). If the binder serves as a substrate for another layer of screed, sprinkle it with quartz sand to increase adhesion.

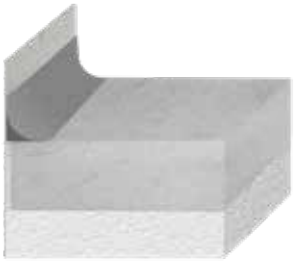


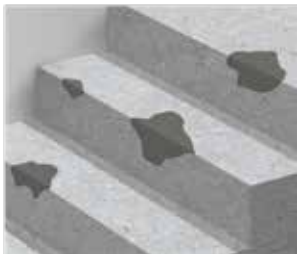

1


2


3

EXAMPLES OF APPLICATION


filleting of wall joints

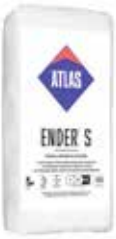

repair of concrete elements, reconstruction of corners


fixing of steel and PVC components


embedding of pipes in pipe passages

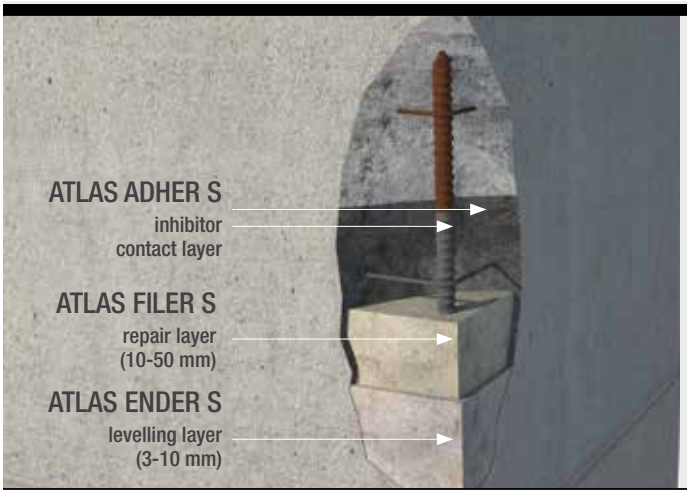
ATLAS BETONER S

repair system for concrete and reinforced concrete surfaces



PRODUCT:	ATLAS ADHER S	ATLAS FILER S	ATLAS ENDER S
	adhesive mortar for concrete repair*	repair mortar for concrete, thickness 10-50 mm	repair filler for concrete, thickness 3-10 mm
TECHNICAL DATA			
Adhesion to concrete (N/mm²)	≥ 1.5	≥ 1.5	≥ 1.5
Layer thickness (mm)	1.0	10 – 50	3 – 10
Preparation and application temperature (°C)	+5 ÷ +25	+5 ÷ +25	+5 ÷ +25
Mixing ratios with water (l/25kg)	8.0 – 8.75	3.5 – 3.75	4.0 – 4.5
Pot life (min)	120	60	60
Open time (min)	15	10	15
Time interval after the execution of the previous stage of work		immediately after application of the ATLAS ADHER S contact layer	24 hours after application of the ATLAS FILER S levelling layer
Dry mix consumption	1.2 kg/m²	20 kg/m² for every 10 mm of thickness	20 kg/m² for every 10 mm of thickness
Foot traffic / use (h)		24**	24*
Load (days)		7	14
Examples of application	protects concrete reinforcement against corrosion	reinforced concrete and concrete: ceilings, pillars, terrace and balcony slabs, retaining walls, beams, staircase tread and landing slabs	
PACKAGING AND STORAGE			
Package size (kg)	25		
Type of packaging	paper bag		
Storage period (months)	12		
SYSTEM COMPONENT			
Component of the system ATLAS BETONER S acc. to PN-EN 1504-7	1 2 3 system PCC	1 2 3 system PCC	1 2 3 system PCC
Function of the mortar	contact layer	repair layer	levelling layer

* as a bonding layer under floors and ATLAS POSTAR screeds
** also applies to the installation of ATLAS WODER DUO waterproofing



A technological system solution
for complex repairs of damaged concrete and reinforced concrete elements. It fulfils the requirements for class R3 acc. to PN-EN 1504:3.

It enables the reconstruction of the original shape of the element.
The system includes cement mortars to be applied in various thicknesses.

A wide range of applications
can be used to repair structural elements as well as to finish ceilings, terraces, balconies, beams, pillars, walls, stairs and floors.

5

gypsums and finishing coats, interior paints

GYPSUMS

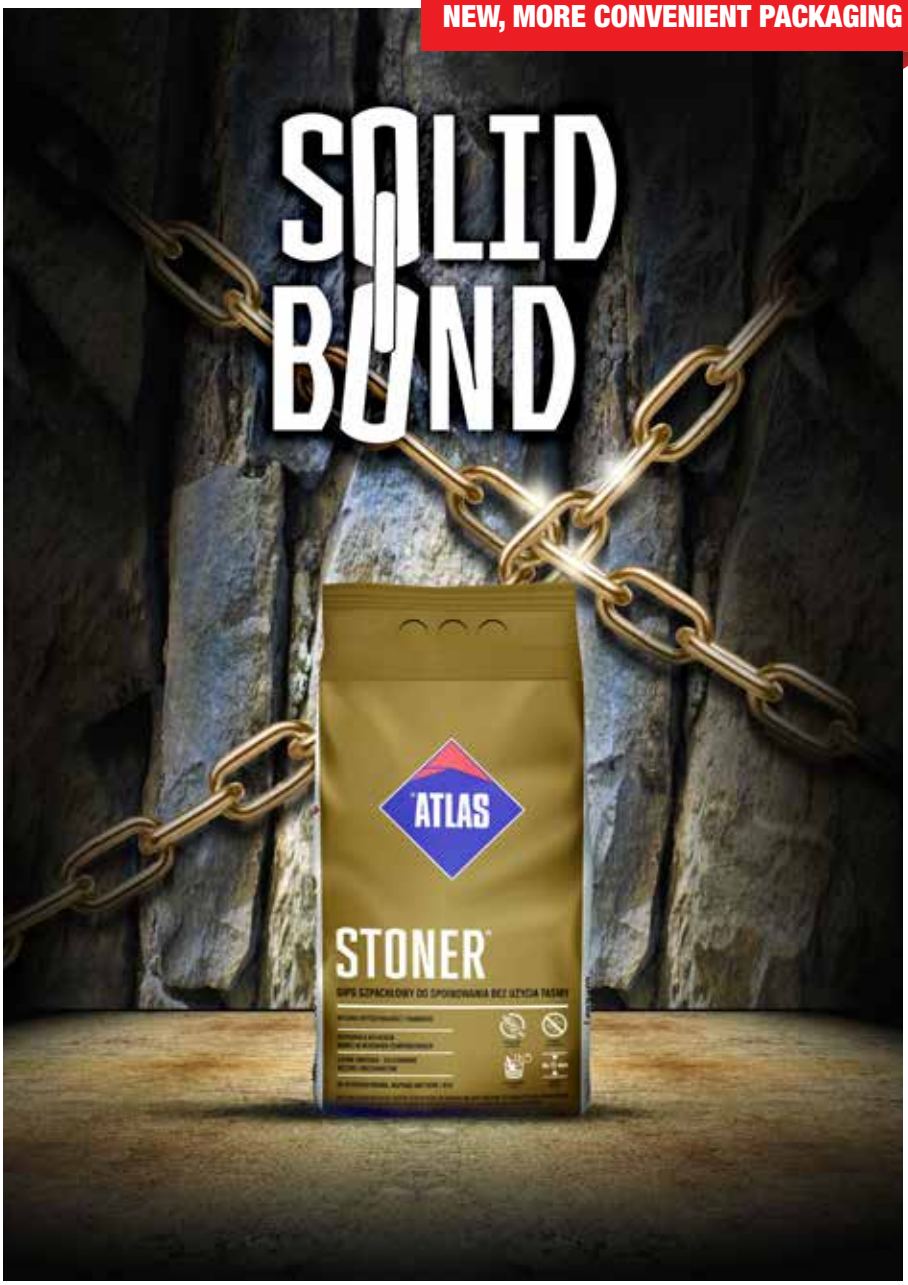
NEW!
PACKAGING 4 KG

PRODUCT	ATLAS SOLARIS	ATLAS BONDER	ATLAS STONER
	gypsum plaster for manual application	adhesive for plasterboards	gypsum putty for jointing without the use of reinforcing tapes
TECHNICAL DATA			
Type of binder	gypsum	gypsum	gypsum
Max. thickness of one layer wall / ceiling (mm)	30 / 15	20 / -	15 / 15
Jointing quality level	n/a		Q1
Adhesive strength (N/mm^2)	≥ 0.3	≥ 0.06	≥ 0.25
Substrate temperature and ambient temperature during application (°C)	+5 ÷ +25	+5 ÷ +30	+10 ÷ +25
Mixing ratios with water (l/kg)	0.64	0.46	0.48
Pot life (min)	30	45	60
Consumption (kg/m^2)	0.85	2.5-5.0*	0.5**
TYPE OF APPLICATION			
Interior renders	+		
Installation of plasterboards		+	
Jointing of plasterboards			+
Gluing of small gypsum elements		+	+
Installation of electrical components	+	+	
APPLICATION METHOD			
Manual	+	+	+
TYPE OF PROCESSING			
Manual grinding	+		+
Mechanical grinding	+		+
PACKAGING AND STORAGE			
Package size (kg)	25	25	4, 20***
Type of packaging	paper bags		4 kg alubag, paper bag
Storage period (months)	6	12	15 (alubag)/12

* consumption in kg/m^2 (depending on the substrate evenness and the gluing method)
** consumption in kg/m of joint (may vary depending on the thickness, shape and the plasterboard edge profiling method)
*** while stocks last

ATLAS STONER

for jointing without the use of reinforcing tapes



ATLAS STONER is a product based on specially selected polymers and cellulose fibres that facilitate its mixing and application. Polymers and fibres also ensure its resistance to cracking after curing.

The ATLAS STONER formula designed in this way allows for levelling the surface as well as filling cavities and cracks up to 15 mm thick, without the risk of excessive dragging and sinking of the mass, which makes the product suitable for numerous applications:

- tapeless jointing of plasterboards surface levelling, repairing cavities and cracks, high strength and hardness, resistance to cracking, perfect application even at higher temperatures (+5 °C ÷ +30 °C),
- easy processing – possibility of manual and mechanical sanding optimal processing time – 1 hour

The new package size (4 kg) makes the use of the product even more convenient and comfortable. The product can be prepared for application in one go without the need to divide and add material during work.

fibre-reinforced

resistant to cracking

pot life

layer thickness

FINISHING COATS

NEW PACKAGING, EVEN BETTER PARAMETERS

INCREASED HARDNESS

2in1 LEVELLING AND JOINTING

OVAL BUCKET FOR APPLICATION WITH A ROLLER

THIXOTROPIC EFFECT

COLOUR CHANGE ALLOWS TO CONTROL PROGRESS OF WORK

PRODUCT	ATLAS GTA	ATLAS RAPID	GIPSAR GO!	GIPSAR UNI	GIPSAR PLUS
	super white polymer finishing coat	ready-to-use polymer finishing coat finish	ready-to-use finishing render	white finishing coat	joint compound start&finish
TECHNICAL DATA					
Colour	white	white	sand	white	sand
Type of binder	polymer resin			gypsum and polymer resin	gypsum and polymer resin
Max. thickness of one layer wall / ceiling (mm)	3 / 3	3 / 3	3 / 3	2 / 2	5 / 5
Jointing quality level	Q1, Q2, Q3, Q4	Q2, Q3, Q4	Q2, Q3, Q4	Q3, Q4	Q2, Q3, Q4
Adhesive strength (N/mm^2)	≥ 0.3			≥ 0.5	≥ 0.5
Substrate temperature and ambient temperature during application (°C)	+5 ÷ +25				
Mixing ratios with water (l/kg)	ready to use			0.39 – 0.40	0.35 – 0.45
Pot life (min)	whole shelf-life period			90	60
Consumption (kg/m^2)	1.0/0.5*	1.0	1.0	1.0	0.8
TYPE OF APPLICATION					
Finishing coat	+	+	+	+	+
Filler					+
Jointing of plasterboards	+				
APPLICATION METHOD					
“Wet-on-wet” technique	+	+	+		+
Roller	+	+	+	+	+
Manual	+	+	+	+	+
Machine	+	+	+	+	+
Dust production	minimum	standard	limited		standard
TYPE OF PROCESSING					
Dust-free wet floating	+				
Manual grinding	+	+	+	+	+
Mechanical grinding	+	+	+	+	+
PACKAGING AND STORAGE					
Package size (kg)	5; 18	5,18, 25, 28	18	5; 10; 20	20
Type of packaging	oval bucket for application with a roller	bucket	bucket	bags (5 kg) or plastic bags	plastic bags
Storage period (months)	12				

* consumption in kg/m of joint (may vary depending on the thickness, shape and the plasterboard edge profiling method)

ATLAS GTA

super white polymer finishing coat

Application with a roller

- easy, even and quick application without splattering
- oval bucket ideal for direct application with a roller, no bending over, no ladder
- faster work on large surfaces

Super white, perfectly smooth

- very smooth surface after one stroke with the spatula
- easy to smooth
- no craters or blisters
- special mineral fillers ensure a snow-white colour

Wet processing possible

- no dust
- time saved
- comfort of work

Multifunctional

- full-surface coating of plasterboards
- jointing of plasterboards with tape
- no cracks and no fissures
- highly elastic and durable

Optimum hardness, easy to grind

- no softening during priming
- for places that are difficult to reach easy to process even after several weeks

Less dust during grinding

- heavy, falling dust
- comfort of work

easy surface processing
with the traditional and the wet technique

two functions
full-surface coating and jointing of plasterboards with tape

wet-on-wet technique
second layer after only 2 h

highly elastic and resistant to cracking
polymer-modified

excellent rheological behaviour
easy to apply with a roller, for manual and machine application

INTERIOR PAINTS

THE HIGHEST ABRASION RESISTANCE




PRODUCT	ATLAS PROFARBA	ATLAS OPTIFARBA	ATLAS ECOFARBA	ATLAS BASE COAT PAINT
Type of paint	latex	latex	acrylic	acrylic
Colour	snow-white matte	snow-white matte	snow-white matte	white
Thixotropy	yes	yes	no	no
TECHNICAL SPECIFICATION				
Density (g/cm^3)	1.45	1.45	1.45	1.45
Viscosity (Brookfield viscometer)	13 000 – 15 000 cP	6 000 – 9 000 cP	6 000 – 9 000 cP	6 000 – 9 000 cP
Temperature for the preparation of the paint as well as substrate and ambient temperature during the works and the drying of the paint (°C)	+5 ÷ +25			
Drying time to grade 3 (h)	2			
Maximum content of volatile organic compounds (*VOC*) (g/l)	29.9			
Application of the next coat (h)	2	2	3	2*
Maximum yield of 1 l (m^2)	14			8
Quality coating acc. to PN-89/C-81536	II	III	III	n/a
Abrasion resistance acc. to PN-EN 13300:2002	Class 2	Class 3	Class 4	
Water vapour diffusion equivalent air layer thickness S_d(after painting twice)	< 0.03	< 0.03	< 0.03	
PACKAGING AND STORAGE				
Package content (l)	10			
Type of packaging	bucket			
Storage period (months)	24			

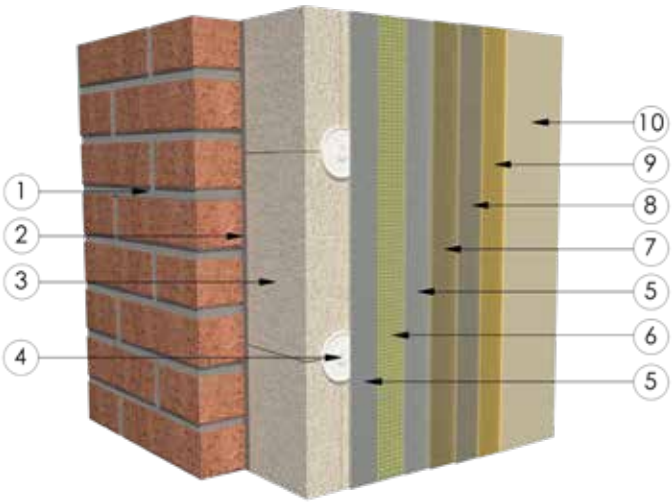
* for top coat

6

thermal insulation systems

THERMAL INSULATION SYSTEM

An ETICS (*External Thermal Insulation Composite System*) is a thermal insulation system for walls composed of two basic layers: **the thermal insulation** and **the top layer**, connected to the wall by means of an adhesive layer and mechanical anchors.



SUCH SYSTEMS ARE TESTED AS A WHOLE AND REPRESENT A BUILDING PRODUCT ACC. TO THE LAW

The exchange of one component excludes the system from the category of building product* and can lead to the non-fulfilment of the requirements with regard to:

- fire safety
- functional properties
- aesthetic values

* a component can be replaced with another one as long as it is included in the system.

SUBSTRATE (1)

mineral surface layer of the insulated external wall of a building with the necessary thickness and technical properties for the secure installation of an ETICS

THERMAL INSULATION

a layer made of a material with a low thermal conductivity coefficient λ

The thermal insulation (3) usually consists of expanded polystyrene (EPS) or mineral wool (WM), but can also be made of XPS, PIR, PUR or resol hard foam insulation boards

Mechanical anchoring elements (screws or nails) (4) serve to mechanically fix the thermal insulation to the substrate.

TOP LAYER a system composed of a reinforcement layer and a finishing render which can (or not) be coated with paints or impregnating agents

Reinforcement layer:

- **adhesive (5)** supplied to the construction site either ready to use or in form of a paste to which cement or another binder must be added before it can be applied.
  It serves to embed the reinforcing mesh
  or **adhesive mortar (2) (5)** – a dry mixture which is then mixed with water at the construction site and serves to glue the thermal insulation material to the substrate and to make the reinforcement layer
- **reinforcement mesh made of glass fibre or plastic (6)** embedded in the layer of mortar or adhesive
  armour fabric (6) a reinforcing mesh with a higher grammage used in areas particularly exposed to mechanical damage, such as the bases of buildings, staircase entrances, near sports fields

Render finish:

- **render (7) (8)** a ready-to-use mass for laying a render coat on the reinforcement layer
  or **rendering mortar (7) (8)** a dry mixture to be mixed with water at the construction site and then to lay a render coat on the reinforcement layer

Priming or impregnating agents (9) – if required
Paints or impregnating agents (10) – if required

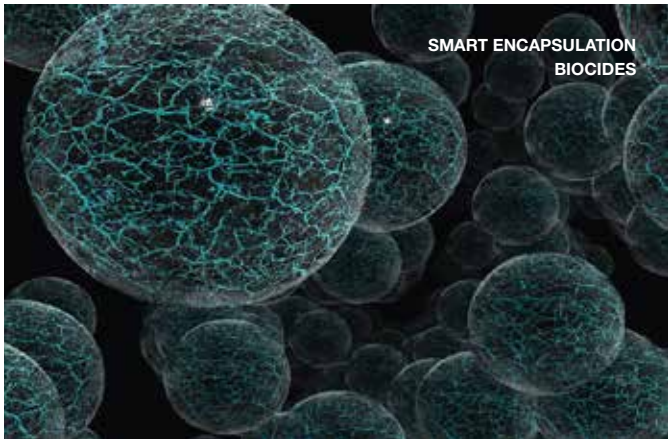
Supplementary elements
e.g. end profiles, edge protections, expansion joint accessories.

PROPERTIES OF ATLAS THERMAL INSULATION SYSTEMS

dispersion renders and façade paints

RESISTANCE TO BIOLOGICAL ATTACKS

The only products on the market that offer certified protection of the façade against growth of algae and mould after water washout i.e. protection of the façade even after prolonged rainfall.



No susceptibility to mould and algae growth even after prolonged water washout (precipitation)

Thanks to their high content of hydrophobic agents, low structural water absorption, specially selected resins and effective protection with encapsulation biocides, ATLAS thin-coat renders and façade paints protect the façade against growth of algae and mould even after prolonged rainfall. The Building Research Institute has confirmed their effectiveness in accordance with PN-EN 15458 (after water washout). The ATLAS products are the only products on the market with certified biocide effectiveness. The test results are included in ITB-KOT-2020/1616, ed. 1.

Natural protection against biological attacks (high pH)

Renders and paints with a high pH value have a natural protection against the growth of fungi and algae. A high pH value (alkalinity) prevents the growth of fungi and mould on the façade. ATLAS product – ATLAS Salta S silicate paint – pH > 11

STAIN RESISTANCE AND SELF-CLEANING EFFECT

Effective protection against soiling

Clean façade

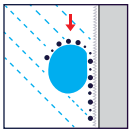
Only such properties as high hydrophobicity, low water absorption and the appropriate structure of the plaster coating can ensure the clean façade effect for many years.

Low water absorption

Ensured by, among others, a high proportion of specially selected resins and additives and properly selected fillers.

Structural tightness

A properly selected aggregate skeleton and structural tightness protect the surface against dirt and enable easier cleaning of the surface during rainfall.



Self-cleaning effect – superhydrophobic surface

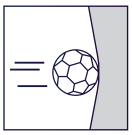
The essence of hydrophobicity is to protect the surface against rainwater while not inhibiting the water vapour diffusion. The surface is protected against rain and can "breathe" at the same time. A measurable measure of the surface hydrophobicity is the so-called wetting angle of contact i.e. the angle between the substrate and the tangent of the drop placed on it. The higher the wetting angle of contact, the higher the hydrophobicity. The higher the hydrophobicity, the better the self-cleaning effect of the surface and the easier the surface is cleaned during rainfall or washing. Water runs off the façade surface together with the contaminations on the surface. The material is considered superhydrophobic when its wetting angle of contact is greater than 110°.

PROPERTIES OF ATLAS THERMAL INSULATION SYSTEMS

dispersion renders and façade paints

IMPACT RESISTANCE

High mechanical strength



Resistance to hard body impacts min. 140 J

ATLAS systems achieve resistance to hard body impacts of up to 140 J thanks to the use of a reinforcement layer made of dispersion adhesive mortar ATLAS Stopter K-100, a combination of two façade meshes ATLAS 150 and armour mesh with a grammage of 340 and ATLAS Silicone Render. Taking into account the standard requirement for thermal insulation systems of > 1 J, ATLAS systems can have impact resistance up to 140 times greater than the standard resistance. Resistance to an impact with an energy of 140 J corresponds to hitting the façade with a football at a speed of over 90 km/h. This is the limit of the ITB's measurement capabilities. The test results are included in ITB-KOT-2020/1616, ed. 1.

REINFORCEMENT LAYER – RENDER SYSTEM

REINFORCEMENT LAYER				
MESH	**ADHESIVE**	**SUBSTRATE**	**RENDER**	**IMPACT STRENGTH**
ATLAS 150	ATLAS HOTER U2	ATLAS SILKON ANX	ATLAS SILICONE RENDER	20 J
ATLAS 150	ATLAS STOPTER K-100	-	ATLAS SILICONE RENDER	20 J
ATLAS 150			ATLAS SILICONE HYBRID	20 J
2 x ATLAS 150			ATLAS SILICONE RENDER	30 J
2 x ATLAS 150			ATLAS SILICONE HYBRID	30 J
ATLAS 150 + 340			ATLAS SILICONE RENDER	140 J
ATLAS 150 + 340			ATLAS SILICONE HYBRID	120 J

REINFORCEMENT LAYER				
MESH	**ADHESIVE**	**POLYSTYRENE**	**RENDER**	**IMPACT STRENGTH**
2 x ATLAS 150	ATLAS STOPTER K-100	TR 100	ATLAS SILICONE-SILICATE RENDER	70 J
2 x ATLAS 150		TR 80		30 J
ATLAS 150 + 340				120 J

RESISTANCE TO HAIL IMPACT

No cracks, high elasticity

Resistance to hail impact – impact of a hailstone with a diameter of 5 cm and a speed of over 100 km/h

ATLAS systems can achieve the maximum standard hail impact resistance of 30 m/s thanks to the use of a reinforcement layer made of adhesive mortar ATLAS Stopter K-100, a combination of two façade meshes ATLAS 150 and armour mesh ATLAS 340 and ATLAS SILICONE RENDER.

Hail impact resistance is additionally measured by ATLAS during special tests based on the roof testing methodology. The test results are included in ITB-KOT-2020/1616, ed. 1.

REINFORCEMENT LAYER – RENDER SYSTEM

REINFORCEMENT LAYER				
MESH	**ADHESIVE**	**SUBSTRATE**	**RENDER**	**RESULTS OF HAIL IMPACT**
ATLAS 150	ATLAS HOTER U2	ATLAS SILKON ANX	ATLAS SILICONE RENDER	6 m/s
ATLAS 150	ATLAS HOTER U2	ATLAS SILKON ANX	ATLAS SILICONE HYBRID	5 m/s
ATLAS 150	ATLAS STOPTER K-100	-	ATLAS SILICONE RENDER	5 m/s
ATLAS 150	ATLAS STOPTER K-100	-	ATLAS SILICONE HYBRID	22 m/s
ATLAS 150 + 340	ATLAS STOPTER K-100	-	ATLAS SILICONE RENDER	30 m/s (measuring device limit) CLASS HW5

INTENSIVE AND FAST COLOURS

480 SAH colours – a wide range of safe colours

Extreme resistance to UV radiation
– thanks to the high content of resins and inorganic and organic pigments highly resistant to UV radiation.
– thanks to the high content of titanium white which acts as a natural protection and reflects part of the UV radiation.

Perfect coverage thanks to high content of titanium white
– titanium white increases the opacity – the more titanium white, the better the opacity; it acts as a filler and has high light reflectivity, which makes the coatings perfectly white and light and ensures protection against UV radiation.

Colour fastness thanks to computer-selected pigments
Properly selected combinations of organic and inorganic pigments with high UV resistance.

SAH 400
ATLAS products are available in the SAH 400 colour range, which includes 200 pastel colours and 200 saturated colours.

The SAH 400 colour range allows you to create unique colour compositions which, thanks to the use of appropriately selected pigment pastes, ensure durability and full safety of use. The presented SAH 400 colour range includes thin-layer dispersion plasters and façade paints.

HIGH ELASTICITY

no cracks in the façade even with HBW = 5

Intense tones – 80 SAH colours

Intense, especially dark colours absorb more light. The lower the HBW, the more energy is accumulated in the given material, meaning that surface is exposed to greater thermal stresses and cracking. The ITB instruction on thermal insulation allows the use of colours with HBW < 20 on the area not greater than 10% of the façade area. The higher the HBW, the more energy is reflected from the façade surface. The façade is less exposed to thermal stresses, and thus to cracking. The ATLAS technology allows the use of silicone render in, for example, black colour on the entire façade surface.

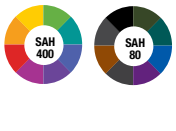
Work in accordance with the technology at HBW < 20
On a sunny day, the surface of the façade on which the render with HBV = 5 is applied may heat up to 75 °C.The render expands strongly together with the reinforced layer. What happens when rain falls on such a heated surface? The temperature of the façade surface drops rapidly to about 25 °C – a thermal shock occurs; the render layer and the reinforcement layer shrink strongly. Only the use of appropriately elastic products prevents the render from cracking. ATLAS offers such a technological solution.

The colours of the façade and the reinforcement layer
colours HBW > 5 (5% of radiation reflected from the façade surface) silicone render + reinforcement layer made of adhesive mortar STOPTER K-100
colours HBW > 15 (15% of radiation reflected from the façade surface) silicone render + reinforcement layer made of adhesive mortar HOTER U2/HOTER U2-B/STOPTER K-100
colours HBW > 20 dispersion renders + adhesive mortar for reinforcement layer.

PROPERTIES OF ATLAS THERMAL INSULATION SYSTEMS

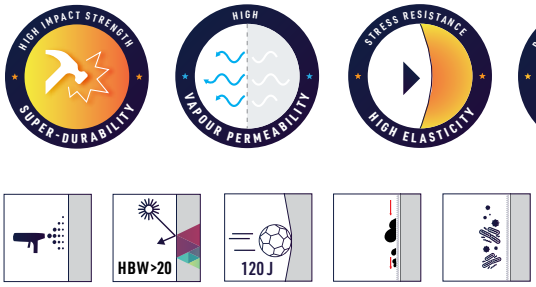
dispersion renders and façade paints

ATLAS SILICONE RENDER



ATLAS SILICONE HYBRID RENDER

ATLAS SILICONE-SILICATE RENDER



ATLAS ACRYLIC RENDER

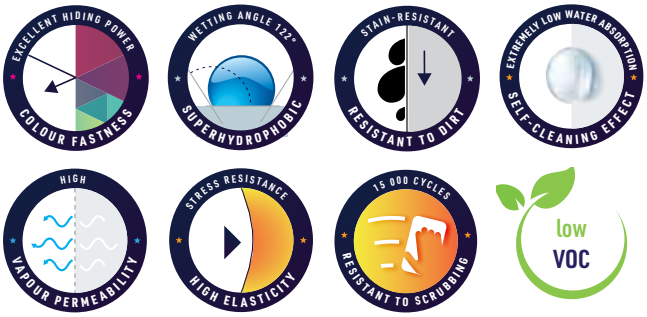
External thermal insulation composite systems ATLAS ETICS, ATLAS ETICS PLUS and ATLAS ROKER are comprehensive solutions that guarantee easy installation, reliability, aesthetic quality and lower operating costs. Their integral components are thin-coat renders and ATLAS façade paints in a wide range of colours and decorative effects.

ATLAS renders and paints largely ensure the long-term durability of the façade, as they constitute a barrier resistant to external factors such as: temperature, UV radiation, precipitation or infestation by mould and algae.

Painting is the last stage of façade works. It is doubly important as it determines not only the appearance of the building it how the building is protected. The selection of the appropriate façade paint depends on a number of factors, including: the thermal insulation installed, the type of painted substrate and the building and its location. ATLAS offers top-quality paints, both superhydrophobic, low-absorbent and self-cleaning silicone paints, highly vapour-permeable, super-durable and chemically bonding silicate paints, as well as highly elastic, ecological acrylic paints. Every investor will find a suitable paint.

SAH 400

ATLAS SALTA N PLUS
PREMIUM SILICONE PAINT



ATLAS SALTA N
SILICONE PAINT

ATLAS SALTA
SILICONE PAINT

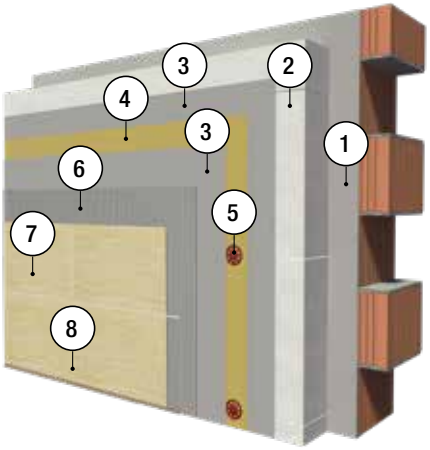
ATLAS SALTA S
SILICATE PAINT

ATLAS SALTA E
ACRYLIC PAINT

ATLAS CERAMIK

the largest tiles available on the market can be installed on the façade

New document of the National Technical Assessment (ITB-KOT-2018/0385 ed. 3)



A SET OF COMPONENTS OF THE ATLAS CERAMIK SYSTEM

	SYSTEM COMPONENT	VERSION I	VERSION II	VERSION III
1	Fixing thermal insulation material to the substrate	ATLAS STOPTER K-20 ATLAS HOTER U ATLAS HOTER S ATLAS GRAWIS S	ATLAS STOPTER K-20 ATLAS HOTER U ATLAS HOTER S ATLAS GRAWIS S	ATLAS STOPTER K-20 ATLAS HOTER U ATLAS HOTER S ATLAS GRAWIS S
2	Thermal insulation acc. to PN-EN 13163	EPS TR100	EPS TR100	EPS TR100
3	Reinforcement layer	ATLAS STOPTER K-20 ATLAS HOTER U	ATLAS HOTER U2	ATLAS STOPTER K-20
4	Fiberglass mesh	ATLAS 150	ATLAS 150	ATLAS 150
5	Anchoring elements – mechanically fixed system (through the mesh)	anchors with a steel bolt, disc stiffness ≥ 6 kN/mm	anchors with a steel bolt, disc stiffness ≥ 6 kN/mm	anchors with a steel bolt, disc stiffness ≥ 6 kN/mm
6	Adhesives for tiles	ATLAS ELASTYK (C2TE) ATLAS GEOFLEX (C2TE) ATLAS GEOFLEX WHITE (C2TE) ATLAS ULTRA GEOFLEX (C2TES1) ATLAS PLUS (C2TES1) ATLAS PLUS BIAŁY (C2TES1)	ATLAS ELASTYK (C2TE) ATLAS GEOFLEX (C2TE) ATLAS GEOFLEX WHITE (C2TE) ATLAS ULTRA GEOFLEX (C2TES1) ATLAS PLUS (C2TES1) ATLAS PLUS WHITE (C2TES1)	ATLAS ULTRA GEOFLEX (C2TES1) ATLAS PLUS (C2TES1) ATLAS PLUS WHITE (C2TES1)
7	Tiles (frost-resistant, surface weight ≤ 40 kg/m^2)	CERAMIC TILES, class AI_a, AI_b, BI_a, BI_b, **area ≤ 0.36 m^2,** absorbtion ≤ 3 % thickness up to 15 mm	CERAMIC TILES, class AII_a, BI_a, BI_b, BII_a, **area ≤ 1.0 m^2,** absorbtion ≤ 6%, thickness up to 3-15 mm STONE TILES **area ≤ 1.0 m^2**, absorbtion ≤ 6% thickness up to 5-20 mm CONCRETE TILES **area ≤ 0.36 m^2,** absorbtion ≤ 6 % thickness up to 5-20 mm	CERAMIC TILES, class BI_a, BI_b, BII_a, **area ≤ 4.0 m^2**, absorbtion ≤ 6% thickness 3-15 mm
8	Grout	ATLAS CERAMIC GROUT; ATLAS ELASTIC GROUT	ATLAS CERAMIC GROUT; ATLAS ELASTIC GROUT	ATLAS CERAMIC GROUT; ATLAS ELASTIC GROUT

ATLAS SILKON BA

concrete texture silicone render

Perfect effect of both *béton brut* with a lot of pitting as well as monolithic concrete.

Ensures the effect of grooved slabs and smooth slabs, almost in every colour selected by investor or architect.

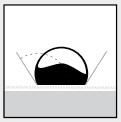
Its excellent resistance to UV radiation and water makes it an ideal façade render for ETICS systems, a finishing material for the bathroom's wet areas – including the shower – and a decorative render for the living room.

Perfectly hydrophobic and low-absorbent – it does not require additional impregnation.

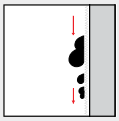
The façade surface is self-cleaning to reduce:

- the risk of penetration of contaminants into the render structure,
- biological attacks e.g. growth of algae,
- façade surface soiling.

exceptional elasticity



high hydrophobicity



resistance to dirt

resistance to weather conditions

fast colours

ADHESIVE MORTARS

GEL TEHNOLOGY

PRODUCT	ATLAS STOPTER K-50	ATLAS STOPTER K-20	ATLAS HOTER U2-B
Fibre-reinforced	+	+	
SPECIFICATIONS			
Adhesion to polystyrene (N/mm^2)	≥ 0.1*	≥ 0.08	≥ 0.08
Adhesion to wool (N/mm^2)	≥ 0.08	n/a	n/a
Adhesion to concrete (N/mm^2)	≥ 0.25	≥ 0.25	≥ 0.25
Application temperature (°C)	+5 ÷ +30	0 ÷ +25	+10 ÷ +35
Mixing ratios with water (l/25kg)	5.0 – 5.5	5.0 – 5.5	7.5 – 8.0
Pot life (h)	4	4	4
Open time (min)	25	25	30
Consumption (kg/m^2) – insulation boards fixing	polystyrene 4.0 – 5.0 wool 4.5 – 5.5	4.0 – 5.0	4.0 – 5.0
Consumption (kg/m^2) – base coat	polystyrene 3.0 – 3.5 wool 5.5 – 6.5	3.0 – 3.5	3.0 – 4.0
Colour	white	grey	white
Necessity of priming before rendering	not necessary	necessary	not necessary
FUNCTION OF THE ADHESIVE IN THE THERMAL INSULATION SYSTEM			
Mounting	+	+	+
Mounting and reinforcement layer	+	+	+
TYPE OF THERMAL INSULATION			
Expanded polystyrene EPS even up to 50 cm thick**	+	+	+
Mineral wool even up to 30 cm thick***	+		
Phenolic foam		+	
USE IN THERMAL INSULATION SYSTEMS			
Thermal insulation system ATLAS ETICS	+	+	+
Thermal insulation system ATLAS ROKER	+		
ATLAS TERMO PLUS thermal insulation system		+	
ATLAS CERAMIK thermal insulation system		+	
PACKAGING AND STORAGE			
Package size (kg)			
Type of packaging	paper bag		
Storage period (months)	12		

* for polystyrene TR 100
** for ATLAS ETICS
*** for RENOTER W

FOR FIXING WOOL AND EXPANDED POLYSTYRENE

ATLAS HOTER U	ATLAS HOTER S	ATLAS GRAWIS U	ATLAS GRAWIS S	ATLAS ROKER W	ATLAS ROKER U
		+	+		
SPECIFICATIONS					
≥ 0.08	≥ 0.08	≥ 0.08 already after 24 hours	≥ 0.08 already after 24 hours	n/a	n/a
n/a	n/a	n/a	n/a	≥ 0.08	≥ 0.08
≥ 0.25	≥ 0.25	≥ 0.25 already after 24 hours	≥ 0.25 already after 24 hours	≥ 0.25	≥ 0.25
+5 ÷ +30	+5 ÷ +30	+3 ÷ +30	+3 ÷ +30	+5 ÷ +30	+5 ÷ +30
5.0 – 5.5	5.0 – 5.5	5.25 – 5.75	5.5 – 6.0	5.5 – 6.0	5.5 – 6.0
4	3	2.5	1.5	2	2
25	25	15	10	30	30
4.0 – 5.0	4.0 – 5.0	4.0 – 5.0	4.0 – 5.0	4.5 – 5.0	polystyrene 4.0 – 5.0 wool 4.5 – 5.5
3.0 – 3.5		3.0 – 3.5			polystyrene 3.0 – 3.5 wool 5.5 – 6.5
grey/white	n/a	grey	n/a	n/a	grey
necessary	n/a	necessary	n/a	n/a	necessary
FUNCTION OF THE ADHESIVE IN THE THERMAL INSULATION SYSTEM					
+	+	+	+	+	+
+		+			+
TYPE OF THERMAL INSULATION					
+	+	+	+		+
				+	+
USE IN THERMAL INSULATION SYSTEMS					
+	+	+	+	+	+
				+	+
	+		+		
PACKAGING AND STORAGE					
25					
paper bag					
12					

RENDERING PRIMERS

PRODUCT	ATLAS CERPLAST	ATLAS SILKON ANX
Colour*	white, can be coloured using mixers, in accordance with SAH	
APPLICATION WITH REGARD TO THE TYPE OF RENDER		
Silicone	+**	+
Silicone – silicate		+
Acrylic	+	
Mineral	+	
Mosaic	+	
TECHNICAL PARAMETERS		
Adhesion to concrete (N/mm^2)	1	1
Density of the ready product (g/cm^3)	1.5	1.5
Application temperature (°C)	+5 ÷ +30	+5 ÷ +30
Drying time / rendering (h)	4 – 6	4 – 6
Consumption (kg/m^2)	0.3	0.3
USE IN THERMAL INSULATION SYSTEMS		
ATLAS ETICS thermal insulation system	+	+
ATLAS ROKER thermal insulation system	+	+
ATLAS ROKER G thermal insulation system	+	+
ATLAS RENOTER thermal insulation system	+	+
ATLAS TERMO PLUS thermal insulation system	+	+
ATLAS ROKER EPS thermal insulation system	+	+
PACKAGING AND STORAGE		
Package size (kg)	5; 10; 15; 25	15
Type of packaging	bucket	
Storage period (months)	12	

* for colour recommendations see the Technical Data Sheets of renders e.g. ATLAS DEKO M
** for application only under ATLAS SILICONE HYBRID

THIN-COAT FAÇADE RENDERS

classic

	DISPERSION RENDERS				MINERAL RENDERS
					
PRODUCT	ATLAS SILICONE RENDER	ATLAS SILICONE HYBRID RENDER	ATLAS SILICONE-SILICATE RENDER	ATLAS ACRYLIC RENDER	ATLAS CERMIT ND / CERMIT ND FOR PAINTING
Type of render	SILICONE		SILICONE – SILICATE	ACRYLIC	MINERAL
APPLICATION PROPERTIES					
Binder	silicone resin with added siloxanes	polymer resin	polymer resin water-glass	polymer resin	cement, lime
Screed	ATLAS SILKON ANX	ATLAS SILKON ANX/ ATLAS CERPLAST	ATLAS SILKON ANX	ATLAS CERPLAST	
Texture	spotted	spotted	spotted	spotted	spotted
Number of colours	400 + 80 intense colours	400	400	400	2 (white, grey)
Max. aggregate diameter (mm):	1.5 2.0	1.5	1.5 2.0	1.5	1.5 2.0
Temperature (°C)	+5 ÷ +30				
Pot life (h)	shelf life				1.5*
Consumption (kg/m^2)	2.5/N-15 3/N-20	2.5/N-15	2.5/N-15 3/N-20	2.5/N-15	2.5/N-15 2.8/N-20
METHOD OF APPLICATION					
Manual and machine application	+	+	+	+	+
SPECIFICATIONS					
Water vapour permeability V (g/m^2/24 h)	medium 15 < V2 ≤ 150	medium 15 < V2 ≤ 150	high V1 > 150	medium 15 < V2 ≤ 150	n/a
Water permeability W (kg/ m^2 h$^{0.5}$)	low W3 < 0.1	medium 0.1 < W2 < 0.5	medium 0.1 < W2 < 0.5	medium 0.1 < W2 < 0.5	≤1ml/cm^2 after 48 h
S_d (m)	0.14 – 1.4	0.14 – 1.4	< 0.14	0.14 – 1.4	< 0.14
Resistance to biological attacks	+	+	+	+	+
Resistance to biological attacks after water washout**	+	+	+	+	+
Maximum resistance to hard body impacts*** / maximum impact strength (J)	140	120	120	Class III	Class III
Maximum hail impact resistance**** (m/s)	30*****	22			
pH	8	8	9	8	12
PACKAGING AND STORAGE					
Package size (kg)	25				
Type of packaging	bucket				paper bag
Storage period (months)	12				

* mixing water 6.0 – 6.5 l per 25 kg
** tested acc. to PN-EN 15458
*** the results of the impact resistance tests for the individual systems are available in KOT at www.atlas.com.pl under the tab SYSTEMS
**** tested in a reinforcement layer containing the mesh ATLAS 150 + ATLAS 340
***** the value given is the capacity limit of the measuring device

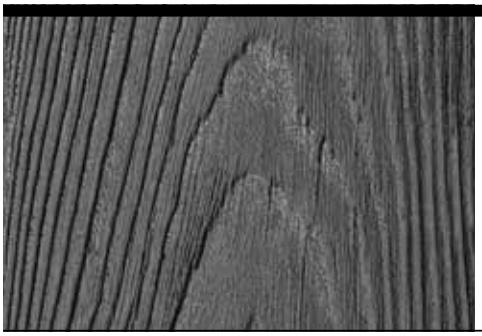
THIN-COAT FAÇADE RENDERS

decorative



PRODUCT	ATLAS DEKO M					ATLAS CERMIT N-100	ATLAS CERMIT BA-M	ATLAS CERMIT WN	ATLAS SILKON BA
	TM0	TM1	TM3	TM5	TM6				
Type of render	MOSAIC					FOR TEMPLATES	MINERAL		SILICONE
APPLICATION PROPERTIES									
Binder	polymer resin						cement, lime		polymer resin
Screed	ATLAS CERPLAST								ATLAS CERPLAST ATLAS SILKON ANX ATLAS ULTRAGRUNT***
Texture / decorative effect	standard mosaic	fine mosaic	standard mosaic	stone effect	sandstone effect	spotted / sandstone eg. brick effect	concrete effect	timber effect (to be achieved by means of a silicone form)	concrete effect
Number of colours	unlimited	120	20	13	unlimited 6 recommended	400	1	1 (white)	9****
Max. aggregate diameter (mm):	2	0.8	2	1.2	0.5	1	1.5	1	1.2
Application temperature (°C)	+5 ÷ +30						+5 ÷ +25	+5 ÷ +30	
Pot life (h)	whole shelf-life period						3*	1**	whole shelf-life period
Consumption (kg/m²)	3 – 5.5	1.5 – 2.5	3 – 5.5	2.4 – 4.3	1.5 – 2.5	2	< 3	2.5 – 3.0	2.5
METHOD OF APPLICATION									
Manual	+	+	+	+	+	+	+	+	+
Machine	-	-	-	+	+	+	-	-	+
SPECIFICATIONS									
Water vapour permeability V (g/m²/24 h)	medium 15 < V2 ≤ 150					medium 15 < V2 ≤ 150	n/a	medium 15 < V2 (with stain) ≤ 150	medium 15 < V2 ≤ 150
Water permeability W (kg/m² h0.5)	medium 0.1 < W2 < 0.5					medium 0.1 < W2 < 0.5		≤ 1ml/cm² after 48 h	medium 0.1 < W2 < 0.5
S_d (m)	0.14 – 1.4					0.14 – 1.4	0,14 –1,4	0.14 – 1.4	0.14 – 1.4
Resistance to biological attacks	+					+	+	+	+
pH	8					8	12	12	8
PACKAGING AND STORAGE									
Package size (kg)	15; 25					25			20
Type of packaging	bucket						paper bags		bucket
Storage period (months)	12								

* mixing water 6.0 – 6.5 l per 25 kg ** mixing water 5.25 – 6.0 l per 25 kg *** when applying on old tiles **** can be coloured in accordance with SAH



ATLAS ANTI-ADHESION AGENT FOR MOULDS

- for silicone and polyurethane moulds, (e.g. for wooden board effect with ATLAS CERMIT WN)
- does not leave stains on the substrate
- facilitates work and prevents the render from sticking to the mould
- easy and safe to use

ATLAS DECORATIVE RENDERS

elegance combined with practicality

ATLAS DEKO M

Stone effect TM5

Sandstone effect TM6

Mosaic TM0, TM1, TM3

ATLAS CERMIT WN
ATLAS BEJCA

Timber effect

ATLAS CERMIT N-100
ATLAS BEJCA (optional)

Brick effect

CONCRETE EFFECT

ATLAS CERMIT BA-M

ATLAS SILKON BA

ATLAS METALLIC VARNISH

Metal effect

FAÇADE PAINTS

PRODUCT	ATLAS SALTA N PLUS	ATLAS SALTA N	ATLAS SALTA	ATLAS SALTA S	ATLAS SALTA E	ATLAS BEJCA	ATLAS METALLIC VARNISH
Type of paint	SILICONE PAINT			SILICATE PAINT	ACRYLIC PAINT	STAIN	METALLIC VARNISH
Number of colours	400	400	400	352	400	10	4
APPLICATION PROPERTIES							
Density (kg/dm^3)	1.44	1.44	1.42	1.5	1.53	1.02	1.6
Application temperature (°C)	+5 ÷ +30	+5 ÷ +30	+5 ÷ +30	+5 ÷ +25	+5 ÷ +30	+10 ÷ +30	+5 ÷ +30
Drying time (h)	2	2 – 6	2 – 6	2 – 3	2 – 4	1 – 2	0.5
Application of the next layer (h)	3	6	6	6	6	6	n/a
Minimum waiting time before application on fresh mineral render	after 5 days	after 5 days	after 5 days	after 2 days	after 28 days	after 3 days	after 2 days
Yield of 1 litre for one layer (m^2)	4 – 6.6	4 – 6.6	4 – 8	4.5 – 6	4 – 8	4 – 5	4 – 5
TECHNICAL PROPERTIES							
Gloss G	G3 – matt	G3 – matt	G3 – matt	G3 – matt	G3 – matt	n/a	G2 (semi-gloss)
Coating thickness E (µm)	100 < E3 < 200	100 < E3 < 200	100 < E3 < 200	100 < E3 <200	100 < E3 < 200		n/a
Grain size (µm)	S1 – fine < 100	S1 – fine < 100	S1 – fine < 100	S1 – fine < 100	S1 – fine < 100		
Water vapour permeability V (g/m^2/24 hours)	medium 15 < V_2 < 150			high V_1 > 150	medium 15 < V_2 < 150	medium 15 < V_2 < 150	
Water permeability W (kg/m^{2}h$^{0.5}$)	low W_3 < 0.1			medium 0.1 < W_2 < 0.5	low W_3 < 0.1	low W_3 < 0.1	
S_d (m)	0.14 – 1.4			< 0.14	0.14 – 1.4	0.14 – 1.4	0.14-1.4
Opacity (white paint)	Class 1 / yield 8 m^2		Class 2 / yield 8 m^2			n/a	
pH	8	8	8	11 – 12	8	8	7.5
Degree of adhesion	1	1	1	1	1	1	1
Assessment of the degree of blistering, cracking and peeling	no blistering, peeling or cracking						
TYPE OF SUBSTRATE							
Mineral substrates: concrete, traditional renders	+	+	+	+	+	+	+
Thin-coat mineral render	+	+	+	+	+	+	+
Thin-coat acrylic render	+	+	+		+	+	+
Thin-coat silicone render	+	+	+		+	+	+
Thin-coat silicone – silicate render	+	+	+	+			+
Thin-coat silicate render	+	+	+	+			+
USE IN THERMAL INSULATION SYSTEMS							
Thermal insulation system ATLAS ETICS	+	+	+	+	+	+	+
Thermal insulation system ATLAS ETICS PLUS		+	+	+			
Thermal insulation system ATLAS ROKER G		+	+	+		+	
Thermal insulation system ATLAS ROKER		+	+	+			+
Thermal insulation system ATLAS RENOTER		+	+	+	+		+
Thermal insulation systemATLAS TERMO PLUS	+	+					
PACKAGING AND STORAGE							
Package size	10 l					4 l	4 kg
Type of packaging	bucket						
Storage period (months)	12						

ATLAS SALTA N PLUS

premium silicone paint

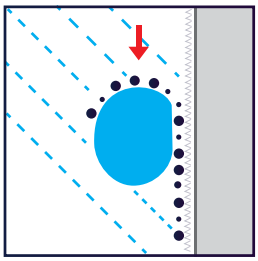
Superhydrophobic surface with extremely low water absorption

The essence of hydrophobicity of ATLAS SALTA N PLUS is to protect the surface against rainwater while not inhibiting the water vapour diffusion. The surface is protected against rain and can "breathe" at the same time.

In addition, ATLAS SALTA N PLUS paint is distinguished by:

- high vapour permeability,
- high elasticity,
- rapid resistance to precipitation,
- resistance to dirt,
- resistance to the development of algae, lichen, fungi and mould,
- self-cleaning surface,
- exceptional colour fastness.

ATLAS SALTA N PLUS is more than a silicone paint.
A special composition of binders, silicone resins and fillers guarantees that this paint fulfils the highest expectations both from the point of view of the person working with it and the user.



SELF-CLEANING EFFECT

400
UV-resistant colours

superhydrophobic and non-absorbent

stain-resistant

quickly rainproof

vapour-permeable
it also enables CO_2 migration

resistance to biological attacks
resistant to fungi, algae and lichens

weatherproof
resistant to weather conditions
– UV radiation, frost, heavy precipitation

elastic

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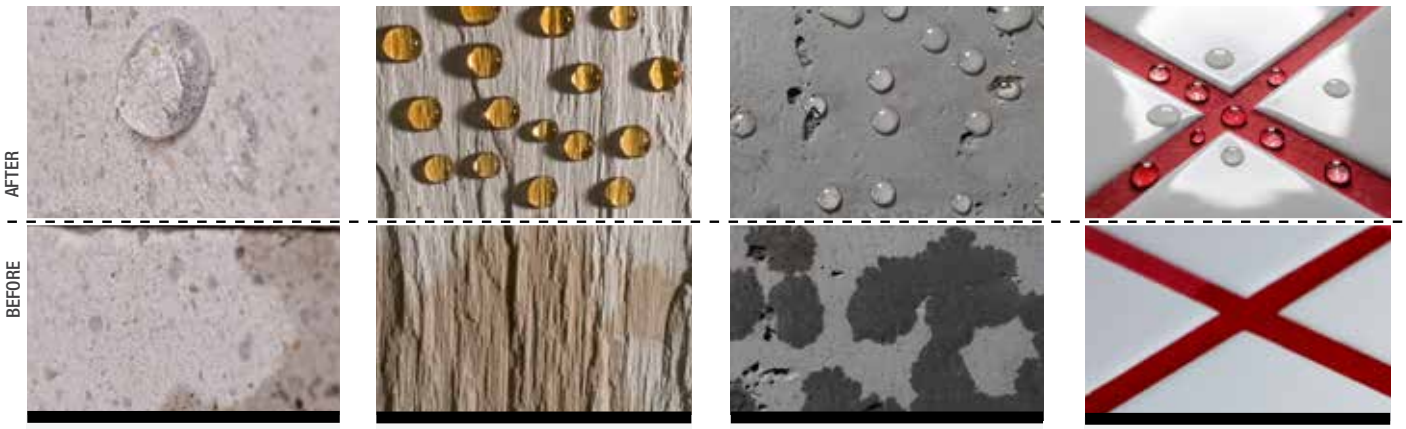
cleaning agents, impregnating agents, care agents

IMPREGNATION

PRODUCT	ATLAS IMPREGNATING SEALER for natural stone and stoneware	ATLAS DELFIN	ATLAS IMPREGNATING SEALER for sandstone, bricks and renders	ATLAS IMPREGNATING SEALER for architectural concrete
Content	1 l	0.25 kg; 1 kg	1 l	1 l
Consumption (m^2 /1 l)	15 – 20	15 – 20	5 – 15	approx. 5
SURFACE IMPREGNATION				
Cement grouts		+		
Ceramic tiles	+	+		
Glazed ceramic tiles	+			
Stoneware (also polished)	+	+		
Glazed stoneware	+			
Terracotta	+	+		
Natural stone	+		+	
Polished natural stone	+			
Synthetic stone	+			
Cement tiles/elements		+	+	
Brick, stone and clinker walls	+		+	
Concrete			+	
Béton brut				+
Paving stone			+	
Render			+	

EFFECTIVE IMPREGNATION AND PROTECTION AGAINST CONTAMINATION



sandstone, bricks, renders

natural stone, stoneware

architectural concrete

grouts and ceramic tiles

CLEANING AND CARE

PRODUCT	ATLAS CEMENT AWAY	ATLAS RESIN AWAY	ATLAS MYKOS PLUS Concentrate against algae, fungi and lichens
Content	1 kg	1 kg	5 l
TYPE OF CONTAMINATION			
Mould, fungi, algae, lichens			+
Scale, rust, soap deposits	+		
Grout, cement adhesive residues	+		
Residues from dispersion paints, adhesives and renders		+	
Residues from mineral mortars, renders and finishing coats	+		

PRODUCT	ATLAS CLEAN JOINTS	ATLAS MYKOS NO. 1 Fungi and algae remover
Content	0.5 l	0.5 l
TYPE OF CONTAMINATION		
Soiling due to everyday use (coffee, tea, wine, mud, dust)	+	
Mould, fungi, algae, lichens		+
Scale, rust, soap deposits	+	

REMOVAL OF PERSISTENT CONTAMINATIONS

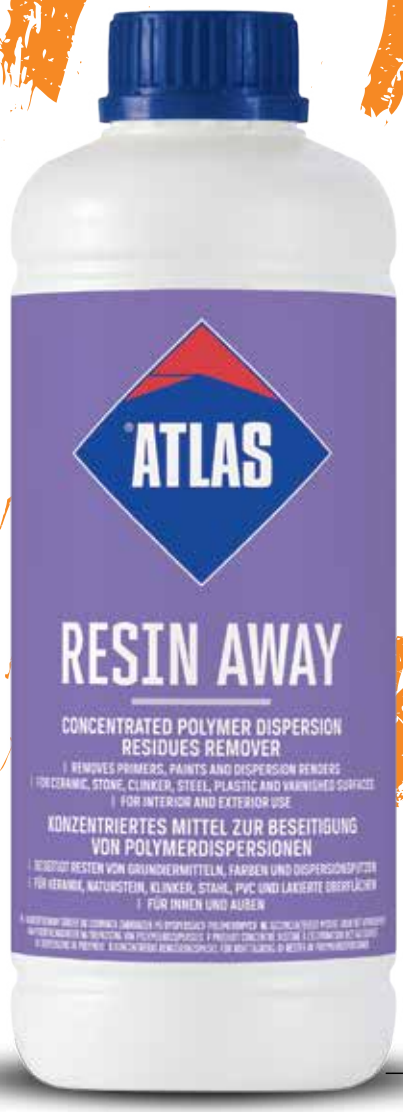
cement residues

paint, primer and render residues

persistent dirt in joints

NEW CLEANING AGENT

TRY RESIN AWAY SEND RESIDUES TO HELL



SCAN & LEARN MORE

REMOVES:

- **paint** stains
- silicone / hybrid / acrylic **renders**
- ready-mix **top finishes:**

ATLAS GTA and RAPID

- ATLAS

(Cerplast, ANX, Uni-Grunt, Ultragrunt)

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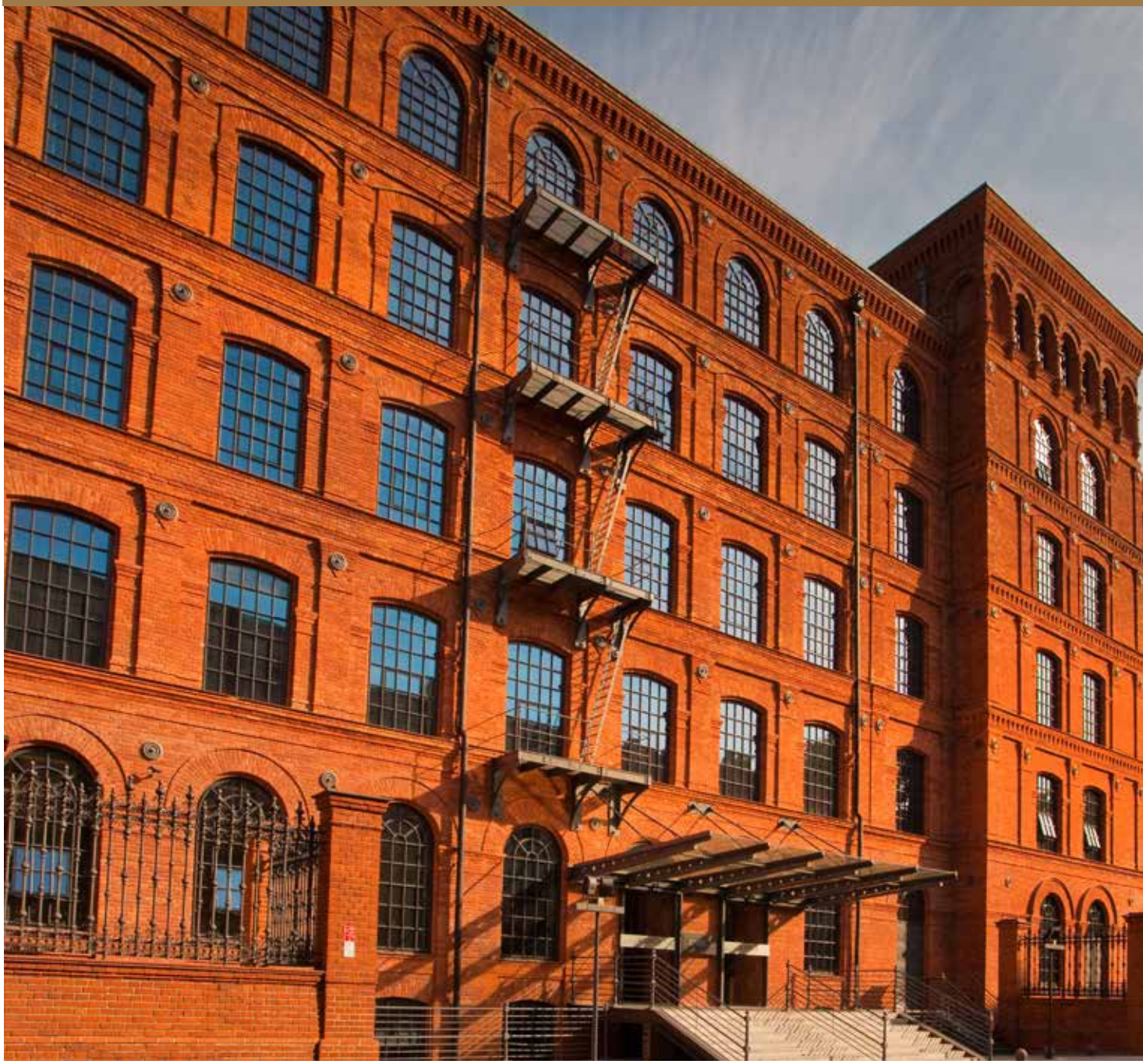
renovation systems



RENOVATION RENDERS AND INJECTION AGENTS

PRODUCT	ATLAS TRO	ATLAS TRP	ATLAS TR	ATLAS TSG	ATLAS TS
Function of the mortar	preparatory spray render	base render coat	renovation render	renovation filler	renovation filler
Type of mortar*	R	R	R	OC	OC
TECHNICAL DATA					
Mixing ratios with water	5.5 / 25	4.00 – 4.50 / 25	4.00 – 4.50 / 25	7.0 – 8.0 / 25	7.0 – 8.0 / 25
Layer thickness (mm)	≤ 5 mm	5 – 25	10 – 25	3 – 10	1 – 10
Pot life (h)	4	2	2	2	2
Consumption in kg per 1 m^2	5	12 / 1 cm thickness	12 / 1 cm thickness	15 / 1 cm thickness	15 / 1 cm thickness
Colour	grey	grey	white, grey	grey	white
APPLICATION METHOD					
Manual	+	+	+	+	+
Machine	+	+	+	+	+
AREAS OF APPLICATION					
Indoor	+	+	+	+	+
Outdoor	+	+	+	+	+
TYPE OF SUBSTRATE					
Ceramic	+	+	+	+	+
Silicate	+	+	+	+	+
Concrete	+	+	+	+	+

* classification of rendering mortars acc. to standard – see p. 78

PRODUCT	ATLAS KS	ATLAS KI
	dual-function liquid injection sealing	silane injection cream
Density (g/cm^3)	1.2	0.9
Injection under gravity	+	+
Pressure injection	+	
Substrate reinforcement	+	
Average consumption	Injection: 15 kg/m^2 of the horizontal wall cross-section Substrate reinforcement: 0.3 kg/m^2	per 1 m wall wall thickness 30 cm; drillhole diameter ϕ 12 mm – approx. 300 ml wall thickness 45 cm; drillhole diameter ϕ 12 mm – approx. 450 ml wall thickness 60 cm; drillhole diameter ϕ 12 mm – approx. 600 ml

RENOVATION RENDERS

Renovation renders is an often colloquial term referring to a group of products used for renovating humid and salty walls. The layer system depends on the concentration and type of salt, which must be determined during the diagnostic analysis. Most often the presence of chloride, sulphate and nitrate ions is analysed.

THE SYSTEM OF RENOVATION RENDERS ACCUMULATES THE SALTS IN ITS STRUCTURE AND STOPS THEM FROM MIGRATING TO THE SURFACE. IT ACCELERATES THE NATURAL DRYING OF THE WALL.

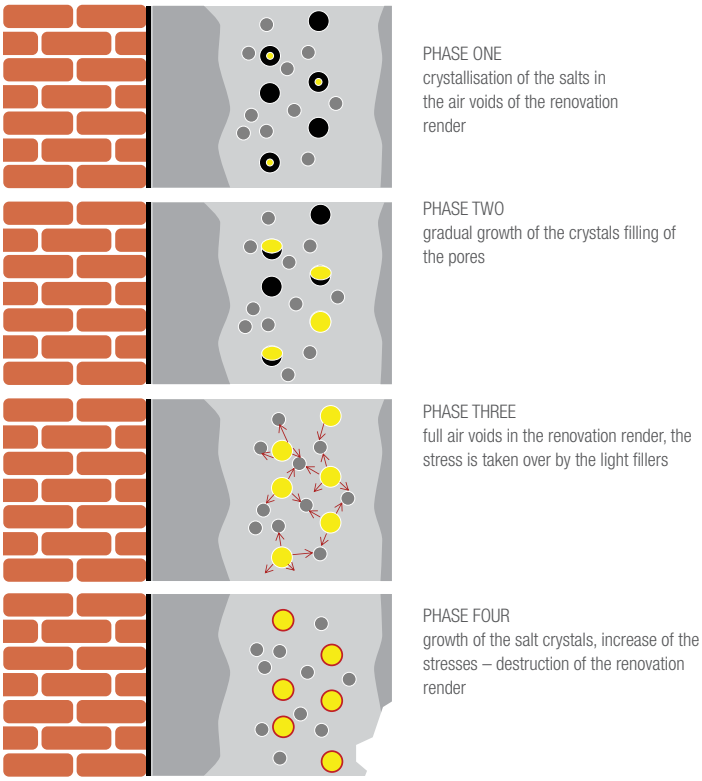
The system of renovation renders includes the following mortars:
a preparatory spray render (ATLAS TRO) – a contact layer which improves the adhesion of the following layers to the substrate. Required is an openwork coverage of the substrate of < 50% and with a max. thickness of 5 mm.

A base coat renovation render (ATLAS TRP) – a hydrophile storage layer which is used on highly salty and very irregular substrates.

A renovation render (ATLAS TR) – a hydrophobic render containing light fillers, the task of which is to partially compensate deformations occurring in the structure of the renovation render due to the crystallising salts.

The system of renovation renders is complemented by renovation fillers:
ATLAS TS fine-grained renovation filler
ATLAS TSG coarse-grained renovation filler

The whole can be finished with paint coats with very high diffusion and low absorbency: the silicone paint ATLAS SALTA N or the silicate paint ATLAS SALTA S.



THE PRINCIPLE OF SYSTEM OF RENOVATION RENDERS

INJECTION AGENTS

SECONDARY STRUCTURAL SEALING is performed in situations, when the building has no horizontal insulation or when this insulation is ineffective. The role of a secondary structural sealing is to stop the capillary transport of moisture and thereby to prevent further corrosion processes and to dry the damp walls.

The function of secondary insulations is based on two mechanisms limiting capillary suction: crystallisation and hydrophobic impregnation.

Crystallising agents are deposited in pores and capillaries. As a result of the reactions taking place there, insoluble and barely soluble compounds are formed, which close or limit the capillary cross-section. **Hydrophobizing agents** act on the capillary walls and change their wetting angle of contact, so that a non-wetting layer is formed which does not have the ability to draw water by capillary action.

Dual-function agents, i.e. crystallising and hydrophobizing agents, are more universal, because they combine the two mechanisms.

ATLAS KS is a dual-function, reactive, deeply penetrating injection liquid producing a permanent structural insulation of the wall against capillary rising of moisture. It can be used for injection under gravity and pressure injection into brick, concrete and stone walls.

In walls with a humidity of < 10% (slightly damp and damp walls), it is possible to apply gravity or pressure injection, in walls with a humidity of < 20% (very damp walls), it is recommended to use pressure injection. When the pores are filled to a higher degree with water, the pressure injection procedure should be preceded by preliminary drying of the wall (e.g. using microwave devices).

ATLAS KI is a silane-based injection cream. It serves to create a horizontal barrier by means of chemical injection in existing walls. Thanks to its high content of active substance (about 80%) it can be used for building structures with a moisture level reaching 95%. The application of the material is simple and does not require any specialist equipment.

Injection works should always be preceded by a diagnostic analysis.

THE SYSTEM FOR THE RENOVATION AND PROTECTION OF BUILDINGS IS COMPOSED OF 5 PRODUCT GROUPS WHICH, DEPENDING ON THE INDIVIDUAL REQUIREMENTS, CAN BE SELECTED AND COMBINED INTO A SYSTEM RECOMMENDED FOR SPECIFIC SOLUTIONS

PROTECTION AGAINST WATER AND HUMIDITY

- ATLAS WODER SX – watertight cement mortar
- ATLAS WODER DUO – two-component elastic sealant
- ATLAS Universal Bitumen
- ATLAS Bituminous Membrane SMB
- Izohan Izobud WM 2K – two-component thick-coat compound KMB
- ATLAS KI – silane injection cream
- ATLAS KS – dual-function injection liquid
- ATLAS TRP – mortar for filling cavities before injections
- ATLAS MONTER T-5 – fast-setting mortar for sealing leakages
- ATLAS MONTER T-15 – fast-setting assembly mortar
- ATLAS IN – mortar for closing drillholes after injections

SYSTEM OF RENOVATION RENDERS

- ATLAS TRO – preparatory spray render for renovations
- ATLAS TRP – renovation base coat render
- ATLAS TR – renovation render
- ATLAS TSG – coarse-grained renovation filler
- ATLAS TRB – white renovation render
- ATLAS TS – fine-grained renovation filler

REPAIR AND REINFORCEMENT OF MASONRY

- ATLAS KS – dual-function injection liquid
- ATLAS SW – reinforcing impregnating agent based on alkyl silicone resin for bricks and stone
- ATLAS CG-02 – repair mortar for bricks and stone
- ATLAS MASONRY MORTAR FOR CLINKER – mortar with trass for laying and jointing of clinker, bricks and stone
- ATLAS IMPREGNATING AGENT FOR NATURAL STONE AND STONEWARE
- ATLAS IMPREGNATING AGENT FOR SANDSTONE, BRICKS AND RENDERS

REPAIR AND RENOVATION OF RENDERS

- ATLAS MYKOS PLUS Concentrate against algae, fungi and lichens
- ATLAS TRO – preparatory spray render
- ATLAS Rendering mortar
- ATLAS LIGHT MACHINE RENDER
- ATLAS TSG – coarse-grained renovation filler
- ATLAS WODER SX – watertight cement mortar
- ATLAS REKORD – white cement filler
- ATLAS SALTA N – silicone paint
- ATLAS SALTA S – silicate paint
- ATLAS IMPREGNATING AGENT FOR NATURAL STONE AND STONEWARE
- ATLAS IMPREGNATING AGENT FOR SANDSTONE, BRICKS AND RENDERS
- ATLAS SZOP
- ATLAS SZOP 2000

SYSTEM OF CASTING MORTARS

- ATLAS ZMB 05 – fine-grained casting mortar
- ATLAS ZMB 25 – coarse-grained casting mortar
- ATLAS ZMP – light mortar for combed rendering
- ATLAS SM-Finish – casting filler
- ATLAS IMPREGNATING AGENT FOR NATURAL STONE AND STONEWARE

9

ATLAS M-SYSTEM® 3G

ATLAS M-SYSTEM® 3G

anchors for fixing plasterboards and OSB

An example of the spacing of the anchors in cm	Required quantity pieces/ m^2	Recommended use
40 x 40	8	ceilings
40 x 60	6	walls
40 x 80	6*	attics
62.5 x 62.5	4	floors

* depending on the shape of the attic. The maximum spacing of the anchors is defined by the field between 4 neighbouring anchors: P ≤ 0.36 m^2

Switch to ATLAS M-SYSTEM 3G to install plasterboard and OSB casings:
– for ceilings,
– walls,
– attics,
– stairs,
– ventilated floors.

EXAMPLES OF APPLICATION

- for difficult, unusual casings of irregular form,
- for soundproofing rooms with wool,
- for cladding standpipes and ventilation ducts,
- for casings in renovated buildings – without removing weak and cracked plaster,
- easy connection of plasterboards and OSB when connecting rooms after demolishing partition walls,
- for various building substrates.

ATLAS M-SYSTEM 3G for laying floors on OSB installed on an existing substrate to enable:
- making a floor on an uneven substrate without load on the ceilings, installing thermal and acoustic insulation as well as vapour barrier,
- installing ICT, electricity, water, sewage and ventilation systems.

PACKAGE CONTENTS

We offer two types of ATLAS M-SYSTEM 3G:
– for walls, ceilings and attics,
– for floors.

Each ATLAS M-SYSTEM 3G package contains a complete set of components and the step-by-step assembly instructions. The stickers on the packages inform about the length of the fixing elements included in the set.

ADVANTAGES OF M-SYSTEM 3G

- board mounting at a distance of only 1 cm from the substrate
- smooth adjustment of the board inclination angle (± 27°) and distance from the substrate (from 1 cm to 25 cm, with the possibility of extension for ceilings),
- self-adjusting anchor,
- point fixing – no stresses, no cracks or fissures,
- uniform plane can be obtained even in the case of large substrate irregularities, quick and easy to install, light and comfortable to transport, no waste during the installation.

FIRE RESISTANCE

The Building Research Institute has assessed that the fire resistance of partitions with plasterboard claddings fastened with ATLAS M-SYSTEM 3G anchors is the same or higher than that of partitions with the same structure without ATLAS M-SYSTEM 3G plastic anchors, in the range of fire resistance classes from EI 15 to EI 60 and from REI 15 to REI 60.W

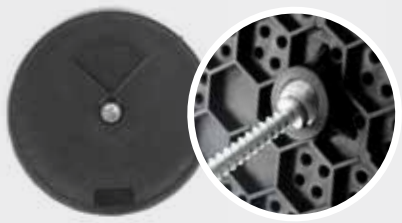
WALLS, CEILINGS, ATTICS

anchoring sleeves
21 pcs

anchor ϕ 6.5 mm
– 50 mm (on request)
– 100 mm
– 150 mm
– 200 mm
– 250 mm with possibility of extension (ceilings)
21 pcs

screws for plasterboards G-K (oxidised), 2.5 cm
84 pcs

Smooth mounting discs, without perforation
– avoid overtightening of the screws in the plastic,
21 pcs



movable joint made of zamak (zinc aluminium alloy)
screws with increased hardness in class 8.8
– eliminate wear of screw seats

FLOORS

anchoring sleeves
21 pcs

anchor ϕ 8.5 mm
– 60 mm (on request)
– 110 mm
– 160 mm
21 pcs

screws for OSB (galvanised), 3.5 cm
84 pcs

10

additional information

CONSUMPTION OF ADHESIVES AND GROUTS FOR TILES

CONSUMPTION OF ADHESIVES FOR TILES

WALL APPLICATIONS
EXAMPLES OF AMOUNTS REQUIRED FOR 1 m²:

	Tile size (cm)	Recommended trowel (mm)	CLASS C1	CLASS C2	CLASS C2 S2
			Amount required (kg)		
mosaic tiles	2x2	4	1.7	1.3	1.5
standard tiles	10x10	4	1.7	1.3	1.5
	30x30	6	2.2	2.0	2.0
	30x60	8	2.9	2.5	2.6
	40x40	8	3.4	2.5	2.6
	50x50	8	2.9 only adhesive OK!	2.5	2.6
	60x40	8	2.9 only adhesive OK!	2.5	2.6
	60x60	10	n/a	3.0	3.2
	70x70	10	n/a	3.0	3.2
fake wood floor	23x90	10	n/a	3.0	2.6
	23x150	10	n/a	3.0	2.6
	23x180	10	n/a	3.0	2.6
slim / large format	100x100	combined method	n/a	approx. 4.5	4.6*
	120x120	combined method	n/a	approx. 4.5	4.6*
	120x240	combined method	n/a	approx. 4.5	4.6*
quartz sinters for façades	300x100	combined method	n/a	approx. 4.5	4.6*
	324x162	combined method	n/a	approx. 4.5	4.6*

FLOOR APPLICATIONS
EXAMPLES OF AMOUNTS REQUIRED FOR 1 m²:

	Tile size (cm)	Recommended trowel (mm)	CLASS C1	CLASS C2	CLASS C2 S2
			Amount required (kg)		
mosaic tiles	2x2	4	1.7	1.3	1.5
standard tiles	10x10	6	2.2	2.0	2.0
	30x30	8	2.9	2.5	2.6
	30x60	10	2.9	3.0	3.2
	40x40	10	2.9	3.0	3.2
	50x50	10	3.4 only adhesive OK!	3.0	3.2
	60x40	10	3.4 only adhesive OK!	3.0	3.2
	60x60	12	n/a	approx. 4.6	4.0
	70x70	12	n/a	approx. 4.6	4.0
fake wood floor	23x90	12 – trowel with semicircular teeth	n/a	approx. 4.6	4.6*
	23x150		n/a	approx. 4.6	4.6*
	23x180		n/a	approx. 4.6	4.6*
slim / large format	100x100	12 – trowel with semicircular teeth	n/a	approx. 4.6	4.6*
	120x120		n/a	approx. 4.6	4.6*
	120x240		n/a	approx. 4.6	4.6*

* consumption for waterproofing layer included

CONSUMPTION OF GROUTS FOR TILES

EXAMPLES OF AMOUNTS REQUIRED:

DIMENSIONS OF THE TILE	WIDTH OF JOINT	DEPTH OF JOINT	CONSUMPTION
0.02 m x 0.02 m	0.002 m (2.0 mm)	0.002 m (2.0 mm)	approx. 0.65 kg/m²
0.10 m x 0.10 m	0.003 m (3.0 mm)	0.0075 m (7.5 mm)	approx. 0.75 kg/m²
0.30 m x 0.30 m	0.004 m (4.0 mm)	0.0075 m (7.5 mm)	approx. 0.35 kg/m²
0.30 m x 0.60 m	0.005 m (5.0 mm)	0.0075 m (7.5 mm)	approx. 0.30 kg/m²
0.50 m x 0.50 m	0.005 m (5.0 mm)	0.0075 m (7.5 mm)	approx. 0.25 kg/m²
0.60 m x 0.60 m	0.005 m (5.0 mm)	0.0075 m (7.5 mm)	approx. 0.20 kg/m²
0.70 m x 0.70 m	0.005 m (5.0 mm)	0.0075 m (7.5 mm)	approx. 0.17 kg/m²
1.0 m x 1.0 m	0.005 m (5.0 mm)	0.0075 m (7.5 mm)	approx. 0.12 kg/m²
1.2 m x 2.4 m	0.004 m (4.0 mm)	0.0060 m (6.0 mm)	approx. 0.05 kg/m²

Mortar consumption depends on the width and depth of the joints and the size of the tiles.

For a given surface it can be calculated with the formula:
$$z = (a1 + a2)/(a1 \cdot a2) \cdot S \cdot b \cdot c \cdot g$$

z – amount of grout required [kg]
a1 and **a2** – width and length of the tiles [m]
S – surface to be grouted [m²]
b – joint depth [m]
c – joint width [m]
g – density of the ready grout [kg/m³], data see Technical Data Sheets

CLASSIFICATION OF BUILDING PRODUCTS ACC. TO STANDARDS – SELECTED ISSUES

CLASSIFICATION OF ADHESIVES ACC. TO PN-EN 12004+A1:2012 (AND NEWER EDITIONS)

According to the standard adhesive mortars are divided into the following types:

- **C** cement-based adhesives
- **D** dispersion adhesives
- **R** reactive resin-based adhesives

The type of an adhesive depends on the type of the binder and the method of bonding. Cement-based adhesives (C) use cement as binder and bond by hydration. Dispersion adhesives (D) use organic resins as binder and bond by drying. Reactive resin-based adhesives (R), on the other hand, are two-component adhesives and bond as a result of a chemical reaction between the components of the adhesive mortar.

The standard distinguishes the following classes of cement-based adhesives:

- **1** normally setting adhesives; adhesive strength after 28 days ≥ 0.5 N/mm^2
- **2** adhesives with improved properties; adhesive strength after 28 days ≥ 1.0 N/mm^2
- **F** fast-setting adhesives; adhesive strength after 6 hours ≥ 0.5 N/mm^2
- **T** adhesives with decreased flowability; maximum flow 0.5 mm
- **E** adhesives with extended open time; adhesive strength after 28 days in 0-20 min (acc. to class), 0-30 min ≥ 0.5 N/mm^2
- **S1** deformable adhesives – sample deformation ≥ 2.5 mm
- **S2** highly deformable adhesives – sample deformation ≥ 5 mm

The deformability of an adhesive is a property describing its ability to transmit shear stress at the contact between the adhesive and the substrate. Shear stresses appear at the contact between, for example, the adhesive and the substrate, for example when ceramic tiles are laid on substrates which change temperature due to external factors (e.g. terraces, balconies or floors with floor heating). In these cases, deformable adhesives of the type S1 or highly deformable adhesives of the type S2 should be used.

Breakdown of the designation of adhesives at the example of ATLAS GEOFLEX EXPRESS (C2 FT)

- **C2** a cement-based adhesive with improved properties; adhesive strength ≥ 1.0 N/mm^2
- **F** fast-setting adhesive
- **T** an adhesives with decreased flowability

STANDARD DESIGNATIONS USED IN THE CLASSIFICATION OF GROUTS ACC. TO PN-EN 13888: 2010

As a rule, three types of grout are available on the market:

CG1 normally setting cement mortar

CG 2 WA cement mortar with improved properties, reduced water absorption and increased abrasion resistance

RG reactive resin-based mortar

Breakdown of the designation of grouts at the example of ATLAS CERAMIC GROUT (CG 2 WA)

CG 2 a cement mortar with improved properties
W with reduced water absorption
A with increased abrasion resistance

STANDARD DESIGNATIONS USED IN THE CLASSIFICATION OF INTERIOR FLOOR SCREEDS ACC. TO PN-EN 13813:2003

In accordance with the standard, floor screeds are divided acc. to the binder used for their production:

CT cement-based screeds

CA anhydrite (calcium sulphate)-based screeds

MA magnesite screeds

AS asphalt screeds

SR synthetic resin screeds

Floor screeds are characterised by means of the following parameters:

C compressive strength (N/mm^2) – compulsory parameter

F flexural strength (N/mm^2) – compulsory parameter

A abrasion resistance (cm^3/50 cm^2) – optional parameter, at ATLAS testing is performed with one of the three Böhme-methods – optional parameter, e.g. when the screed serves as the floor

Breakdown of the designation of floor screeds at the example of ATLAS POSTAR 60 (CT-C30-F5-A9).

CT a cement-based screed
C30 with a compressive strength of ≥ 30 N/mm^2
F5 with a flexural strength of ≥ 5 N/mm^2
A9 with an abrasion resistance of ≤ 9 cm^3/50 cm^2

The method of abrasion testing consists in determining the volume of the material abraded off the test sample. That means, the higher the number given with index A, the lower the abrasion resistance. Consequently, a screed marked, for example, A22 has a lower abrasion resistance than a screed marked, for example, A15.

CLASSIFICATION OF BUILDING PRODUCTS ACC. TO STANDARDS – SELECTED ISSUES

STANDARD DESIGNATIONS USED IN THE CLASSIFICATION OF MASONRY MORTARS ACC. TO PN-EN 998-2: 2012

In accordance with the above standard, masonry mortars are distinguished acc. to their application:

G – general use

T – for thin joints

L – light

Mortar classes:

CLASS	M1	M2.5	M5	M10	M15	M20	MD
Compressive strength (N/mm^2)	1	2.5	5	10	15	20	D*

* D – IS THE COMPRESSIVE STRENGTH OF OVER 25 N/MM^2, DECLARED BY THE MANUFACTURER AS A MULTIPLE OF 5.

STANDARD DESIGNATIONS USED IN THE CLASSIFICATION OF RENDERING MORTARS ACC. TO PN-EN 998-1: 2016-12

In accordance with the above standard, rendering mortars are distinguished acc. to
their application:

GP – general purpose

LW – light

OC – one-layer for outside applications

CR – coloured

R – renovation

T – thermal insulation

Categories of rendering mortars:

PROPERTIES	CATEGORIES	VALUES
Range of compressive strength after 28 days of setting (curing) [N/mm^2]	CS I CS II CS III CS IV	0.4 ÷ 2.5 1.5 ÷ 5.0 3.5 ÷ 7.5 ≥ 6
Water absorption due to capillary rising [kg/m^2▪min0.5]	W 0 W 1 W 2	not determined C ≤ 0.40 C ≤ 0.20
Thermal conductivity coefficient [W/m▪K]	T1 T2	≤ 0.1 ≤ 0.2

TYPES OF WATERPROOFING

Light waterproofing – protects from water flowing freely from the sealed surface. Light waterproofing is applied, for example, in bathrooms. The water freely runs down the walls without forming pools.

Medium waterproofing – protects from water accumulating at the surface in form of pools (puddles). A good example are balcony and terrace floors, where, despite a gradient, water stays for a longer time in form of puddles, for example as a result of melting snow. Waterproofing of this type should be applied also inside buildings, e.g. on bathroom floors with linear water drains.

Strong waterproofing – protects against pressure-generating water. This means that water permanently acts on the sealed surface. The best examples here are swimming pools and water tanks.

DEFINITIONS

Abrasion resistance

In construction, abrasion resistance describes the loss of mass or volume under the influence of an abrasive agent. The abrasion resistance is an important parameter for materials used for flooring. Manufacturers of construction materials generally determine the abrasion resistance by means of the Böhme method. This is also the method used by ATLAS. For floors, the loss of volume is measured in cm^3 per surface of 50 cm^2. The abrasion resistance of floor screeds is indicated with the letter A and a number.
Attention! The higher the number given with the symbol "A" for abrasion resistance, the lower the resistance of the material against abrasion.

Wet mass

The wet mass W_m is the quotient of the mass of water contained in a material to the mass of dry material:

$$w_m = \frac{m_w - m_s}{m_s} \cdot 100\% = \frac{m_{water}}{m_s} \cdot 100\%$$

when:
w_m – wet mass [%]
m_w – weight of the wet sample [kg]
m_s – weight of the sample after drying to constant weight [kg]
m_{water} – mass of water contained in the sample [kg]

Absorbency

The absorbency of a material depends on the size and structure of the pores. In construction, absorbency is usually determined in terms of weight. It describes the amount of water a material can absorb and store. In practice, it means the maximum moisture content of a material. The weight-related water absorption determines the ratio of the maximum mass of the water absorbed by a material to the weight of the material in its dry state and is given in percentages. Consequently, an absorbency of 15% means that the material in its wet state is 15% heavier than in the dry state.

Diffusion resistance coefficient μ

This parameter allows to assess the tightness of a building structure (layer) for water vapour. The essence of this phenomenon consists in the "passing" of water vapour through the building structure as a result of the pressure difference on both sides of the building structure. It can be defined as a number indicating how many times in specific thermal conditions the diffusion resistance (resistance to water vapour) of a material layer is greater than the diffusion resistance of an air layer of the same thickness. The μ-factor is a dimensionless quantity, its knowledge alone does not say anything about the water vapour permeability of a building structure. It is therefore important to set it in relation to the thickness of the building structure and to establish the water vapour diffusion equivalent air layer thickness S_d.

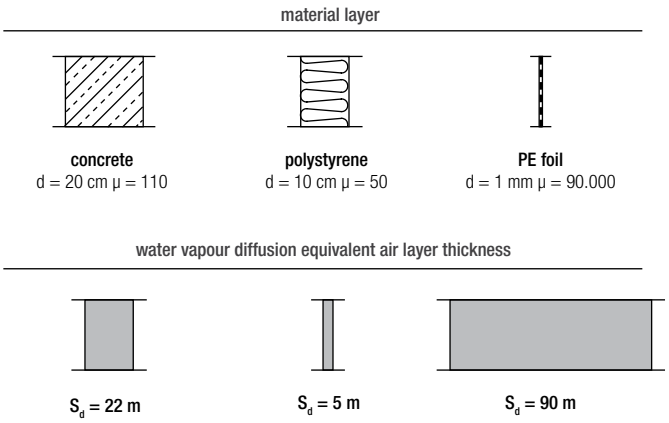
Diffusion equivalent air layer thickness S_d

The parameter S_d defines the thickness of a stationary air layer characterised by the same diffusion resistance as a layer of the given material with the thickness d.

$$S_d = \mu \cdot d$$

when:
S_d – water vapour diffusion equivalent air layer thickness [m]
μ – diffusion resistance coefficient of the material d – thickness of the building structure [m]

material	Coefficient "μ"	Thickness d [m]	Water vapour diffusion equivalent air layer thickness S_d
air	1.0	1.0	1.0
mineral wool	1.3	0.2	0.26
gypsum	10	0.015	0.15
solid ceramic brick	10	0.5	5
polystyrene	50	0.2	10
concrete	110	0.2	22
engineered wood – plywood	150	0.012	1.8
acrylic render	150	0.003	0.45
bituminous sheeting	from 6000	0.004	24
PE foil	from 22000	0.001	22

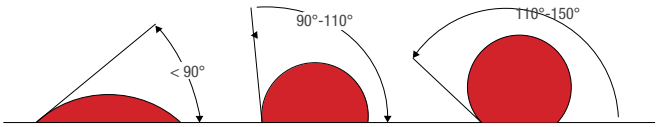


DEFINITIONS

Wetting angle of contact

The wetting angle of contact allows to classify a given material as hydrophobic, i.e. less susceptible to wetting (contact angle > 90°) or hydrophilic, i.e. susceptible to wetting (contact angle < 90°). When a material has a wetting angle of contact of over 110°, it is called superhydrophobic.

The larger the contact angle, the stronger the surface repels water and the substances contained in it, including all kinds of dirt. Water coming into contact with such a surface (e.g. rain) runs off the material together with the contaminations on the surface (dust, pollen and other solid impurities) – the material is therefore self-cleaning.



Thermal conductivity coefficient "λ"

The thermal conductivity coefficient λ describes the ability of a material to conduct warmth. It is determined by measuring the amount of heat passing through 1 m^2 of a material with a thickness of 1 m at a temperature difference of 1K. A low value of the coefficient λ characterises materials with a low thermal conductivity, which are therefore good thermal insulators. Below a list of the coefficients λ for selected building materials.

Coefficients "λ" for selected building materials

Material	Thermal conductivity coefficient λ [W/mK]
Aggregate concrete	1.00
Wall of solid ceramic bricks	0.77
Wall of hollow ceramic bricks on lime-cement mortar	0.33
Pinewood in transverse direction	0.16
Polystyrene	0.031 – 0.045
Mineral wool	0.031 – 0.045

The values given in the table apply to medium-humid materials.
Dampening of materials affects the value of λ– damp materials are inferior insulators.

Thermal resistance

The thermal resistance R (m^2K/W) depends on the thickness of a layer of material and the coefficient λ and is described with the formula:

$$R = \frac{d}{\lambda}$$

Below a list of layer thicknesses of selected building materials, for which the thermal resistance is the same:

R = 0.25 (m^2K/W)

LAYER THICKNESS OF SELECTED MATERIALS WITH THE SAME THERMAL RESISTANCE

Material	Layer thickness [cm] for a thermal resistance of R = 0.25
Polystyrene	1.0
Pinewood in transverse direction	4.0
Wall of hollow ceramic bricks	8.0
Wall of solid bricks	19.3
Aggregate concrete	25

Thermal transmittance "U"

The thermal transmittance of a building structure is described with the coefficient "U" [$W/(m^2K)$], which defines the amount of heat passing through 1 m^2 of the structure. In physical terms, the coefficient "U" is the inverse of the thermal resistance "R" of a structure:

$$U = \frac{1}{R}$$

A low U-value means that little heat passes through building structure, e.g. the exterior wall of a building. Therefore, the lower the U-value, the better the thermal insulation of the building structure. As the thermal insulation of walls is key to energy efficiency, it is not surprising that the U-value and, in fact, its limit value are prescribed by the technical conditions to which buildings and their location should conform. Currently, the limit value Uc_{max} for the exterior walls of a residential building must not be greater than 0.20 [W/m^2K].

HBW – (from the German term *Hellbezugswert*) lightness coefficient (in %)

HBW = 100 means that the entire amount of scattered light is reflected by a surface. The lower the HBW, the more energy is accumulated in the given material, meaning that surface is exposed to greater thermal stresses and therefore more susceptible to cracking.

Intense, especially dark colours, absorb more light than light colours. According to the recommendations of the Polish Building Research Institute ITB, colours with an HBW < 20 can be applied on maximum 10%* of a façade surface.

*Atlas Silicone Render can be used for the entire surface of a façade, thanks to its special composition and the combination with a suitable adhesive mortar in the reinforcement layer.

Impact resistance

The impact resistance is a material's resistance to impact. This property is extremely important for thermal insulation systems, as they are directly exposed to external mechanical influences during their service. The higher the impact strength, the better the protection against incidental damage (e.g. vandalism), but also the protection of areas permanently exposed to damage.

Definitions of application categories.

APPLICATION CATEGORY	DESCRIPTION
I	Areas directly accessible from the ground and exposed to possible impacts from hard bodies but not subject to abnormally severe strain
II	Areas exposed to possible impacts caused by thrown or kicked objects but, thanks to their public location and height, with a limited degree of exposure, or at lower levels where access is easier, up to places requiring permanent protection
III	Areas unlikely to be damaged by a simple impact (man) or a thrown or kicked object

The purpose of steel ball impact and dynamic puncture tests (Perfotest) is to simulate the effect of heavy objects with a permanent shape (non-deforming) or sharp edges accidentally hitting a thermal insulation system. Based on the results, the system must be assigned to one of the following three categories I, II or III:

	CATEGORY III	CATEGORY II	CATEGORY I
Impact with an energy of 10 J		no fracture**	no damage*
Impact with an energy of 3 J	no fracture**	no cracks	no damage*
Perfotest	no no puncture*** with a punch of 20 mm	no puncture*** with a punch of 12 mm	no puncture*** with a punch of 6 mm

* Surface damage without cracks is defined as: “no damage”.
**The test result is assessed as: "fracture occurs", if circular cracks are visible which pass through the render layers to the insulation.
***The test result is assessed as: "puncture occurs", if the render is damaged to a level below the reinforcement layer in at least three of the five test sites.

The values given in the table are taken from ETAG 004 (guidelines for technical approval)

For systems with higher technical parameters, maximum impact loads are determined, to which they can be subjected without any changes in properties, including their appearance. For example, for the system ATLAS ETICS PLUS the maximum impact load is 140 J (when reinforced with the meshes 150 + 340 and with the dispersion adhesive ATLAS STOPTER K-100).

UNITS OF MEASUREMENT USED IN CONSTRUCTION

The current system of measurements is the SI system – the International System of Units of Measurement approved in 1960 by the General Conference on Weights and Measures. The SI units are divided into basic and derived units. The table below presents basic SI units as well as selected derived units used in technology, in particular in construction.

Basic and selected derived SI units

BASIC UNITS

VALUE	NAME	SYMBOL
length	metre	m
weight	kilogramme	kg
time	second	s
temperature	Kelvin	K

DERIVED UNITS

VALUE	NAME	SYMBOL
force	Newton	N
pressure	Pascal	Pa (N/m^2)

Regardless of the official measuring system, there is still a generic system describing primarily stresses, where the unit of stress is a kilogram per unit area expressed in centimetres or in metres. Below are the conversion factors from the SI system to the "generic" system.

CONVERSION OF LOAD AND STRESS UNITS

10 N ≈ 1 kG
1 MPa = 1 N/mm^2
1 MPa ≈ 10 kG/cm^2

EXAMPLE:
the compressive strength of the ATLAS POSTAR 60 screed is: 30 N/mm^2 = 30 MPa ≈ 300 kG/cm^2

CONVERSION OF THE UNIT OF PRESSURE

1 MPa = 100 000 mm water column = 100 m water column

EXAMPLE:
the resistance to pressurised water of ATLAS WODER Duo is: 0.7 MPa = 70 m water column

EXAMPLES OF DESIGN DETAILS

BALCONY – DRIP DETAIL

1. CERAMIC TILE

2. GROUT:
ATLAS CERAMIC GROUT
ATLAS ELASTIC GROUT

3. ADHESIVE MORTAR:
S2 highly deformable adhesive
ATLAS PLUS S2 HYDRO
S1 deformable adhesives
ATLAS ULTRA GEOFLEX
ATLAS PLUS
ATLAS PLUS WHITE
ATLAS PLUS MEGA
ATLAS PLUS MEGA WHITE
ATLAS PLUS EXPRESS
C2 elastic adhesives
ATLAS GEOFLEX
ATLAS GEOFLEX WHITE
ATLAS GEOFLEX EXPRESS

4. UNDER-THE-TILES-WATERPROOFING:
ATLAS WODER DUO
ATLAS WODER DUO EXPRESS
ATLAS WODER E
ATLAS PLUS S2 HYDRO

5. SLOPING LAYER – SCREED:
ATLAS POSTAR 10
ATLAS POSTAR 20
ATLAS POSTAR 60
ATLAS POSTAR 80

6. BONDING LAYER
ATLAS ADHER S

7. STRUCTURAL SLAB

8. PLASTER COATING ON THE REINFORCED LAYER

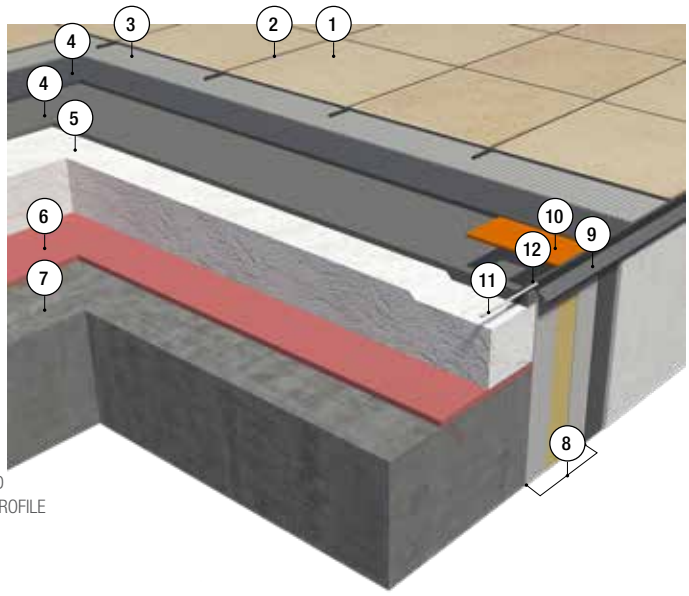
9. DRIP PROFILE
ATLAS 102

10. SEALING TAPE
ATLAS HYDROBAND 3G

11. ATLAS ROUND CORD

ELEMENTS INTEGRATED WITH THE PROFILE ATLAS 102

12. ELASTIC EXPANSION JOINT COMPOUND:
ATLAS ELASTIC SANITARY SILICONE
ATLAS SILTON S SANITARY SILICONE



THERMAL INSULATION OF WALL AND PLINTH – VERSION WITH FIXING PROFILE

1. WALL

2. ADHESIVE FOR FIXING THERMAL INSULATION BOARDS, E.G.:
ATLAS ROKER W MINERAL ADHESIVE MORTAR

3. FIXING PROFILE

4. WATERPROOFING, E.G.:
ATLAS WODER DUO

5. THERMAL INSULATION
MINERAL WOOL BOARDS – THICKNESS ACCORDING TO THERMAL CALCULATIONS
LAMELLA WOOL BOARDS – THICKNESS ACCORDING TO THERMAL CALCULATIONS

6. MORTAR FOR REINFORCEMENT LAYERS WITH EMBEDDED REINFORCEMENT MESH
MINERAL ADHESIVE MORTAR ATLAS ROKER U

7. FIBERGLASS REINFORCEMENT MESH

8. PRIMERS UNDER PLASTER COATING, E.G.:
ATLAS CERPLAST

9. PLASTER COATING, E.G.:
ATLAS CERMIT ND MINERAL RENDER

10. THERMAL INSULATION OF WALL UNDER FIXING PROFILE IN ATLAS XPS SYSTEM

11. PIN SECURING THE FIXING PROFILE

Seal the joint between the plinth plaster and the fixing profile with elastic expansion joint compound.