



ATLAS SILICONE-SILICATE RENDER

- water repellent and vapour permeable
- resistant to algae growth
- rich colours and colour stability
- crack-resistant
- high impact strength



FROST
AND WATERPROOF



FOR INTERIOR
AND EXTERIOR USE



RESISTANT
TO CRACKING



HIGH IMPACT
RESISTANCE



MANUAL / MACHINE
APPLICATION

Properties

ATLAS SILICONE-SILICATE RENDER is a modern microfibre-reinforced thin-coat render developed on the basis of a unique combination of organic and mineral binders (high-alkaline potassium water glass), inorganic binders, coarse marble aggregates, silicate flours, modifiers and preservatives.

It is characterised by very high vapour-permeability, low absorbency and resistance to soiling. Particularly recommended for facades where it is important to maintain high vapour-permeability of the external envelope - it is ideal for cellular concrete buildings, swimming pool walls or old buildings, especially in thermal insulation systems using mineral wool.

Low surface absorbency - the highly UV-resistant hydrophobic layer, the tight bunker pile of textured aggregate and the fine fillers effectively reduce the structural absorbency of the render, thus reducing the danger of dirt penetration and the growth of biological life and the formation of stains.

Not susceptible to algae growth - due to the high degree of hydrophobisation, the structural integrity of the coating and the very high content of encapsulated coating-active substances

High durability of the coating during use - through the use of a combination of silicone dispersions, special additives and modifiers:

- increased durability of the coating,
- resistance to weathering and UV radiation is achieved,
- resistance to microbial growth has been increased,
- ensures that the aesthetic appearance of the facade is maintained over the long term.

High flexibility - ability to bridge thermal stresses through high content of dedicated polymer resins.

High resistance to microscratch formation - thanks to a specially selected bulk stack of fine fillers and additional structural reinforcement using microfibres.

High colour fastness - ensured through the use of hybrid mixtures of inorganic and organic pigments with increased resistance to external influences and special reflective additives.

Machine application using recommended rendering units.

The exceptional care for the environment at the manufacturing stage of ATLAS SILICON-SILICATE RENDER, taking into account the requirements of sustainable development, is confirmed by a Type III Environmental Declaration.

400 colours according to the SAH Paints and Renders Colour Chart

ATLAS colouring system - selection of any individual colour according to the customer's requirements

type of invoice

spotted (sheepskin) - N

textured aggregate max:

up to 1.5 mm - N-15

up to 2.0 mm - N-20

Purpose

ATLAS SILICONE-SILICATE RENDER is intended for decorative thin-layer and protective rendering on the outside of existing buildings, newly constructed buildings and indoors:

- in complex external thermal insulation composite systems (ETICS) for buildings using expanded polystyrene (EPS) panels and mineral wool,
- On even, properly prepared mineral substrates (e.g.: concrete, traditional cement and lime render and cement-lime render).

PLACE OF USE	
facade in an insulation system with polystyrene foam	+
façade with mineral wool insulation system	+
single-layer wall facade	+
ceiling side	+
wall inside the building	+

TYPES OF FACILITIES	
housing construction	+
public, educational, office, healthcare, sports facilities	+
commercial and service construction	+
industrial construction	+
industrial warehouses	+
traffic construction	+
farm and livestock buildings	+
historic buildings	+
passive construction	+
energy-efficient construction	+

LOCATION	
urban and urbanised areas	+
industrial, investment and economic zones	+
rural and agricultural areas	+
Wetlands and humid areas, surroundings of water bodies	+
close proximity to tree stands and green areas	+
shaded areas	+

SUBSTRATE TYPE	
reinforced layers of insulation systems indicated	+
concrete	+
traditional, cement and cement-lime renders made on brick, block and hollow ceramic, cellular or calcium-silicate walls	+
Gypsum render, plasterboard (inside the building)	+

Technical data

Density of the finished product	approx. 1.9 g/cm ³
Diffusion resistance	S _d < 0.14 m
pH	9
Temperature of the compound preparation and of the substrate and surroundings before, during and after the setting period	from +5 to +30 °C
Relative air humidity during application and setting	< 80%
Drying time	approx. 15 minutes*
Drying time of the render	approx. 24 h*

*) - applies to T=20° C, relative humidity 60%

Technical requirements

ATLAS SILICONE-SILICATE RENDER meets the requirements of EN 15824:2017-07 - thin layer silicone-silicate render, water-dilutable, for use on external and internal walls, columns and partition walls.

ATLAS SILICONE-SILICATE RENDER (2020) Declaration of performance No. 125/3/CPR EN 15824:2017	
Intended use: for external walls, ceilings and columns. For internal walls, ceilings, columns and partitions	
Water vapour permeability	V ₁ - high
Water absorption	ln ₂ - average
Adhesion	0.35 MPa
Reaction to fire	A2-s1, d0

ATLAS TYNK SILICONE-SILICATE RENDER is a component of product sets for making thermal insulation systems:

Name of the system	Technical Approval Number / National Technical Assessment
ATLAS ETICS	ITB-KOT-2020/1616 Issue 1
ATLAS ETICS PLUS	ITB-KOT-2018/0584 Issue 1
ATLAS RENOTER	ITB-KOT-2021/2020 edition 1
ATLAS RENOTER W	ITB-KOT-2020/1187 1st edition
ATLAS ROKER	ITB-KOT-2021/1919 edition 1
ATLAS ROKER G	ITB-KOT-2018/0583 Issue 1
ATLAS THERMO PLUS	ITB-KOT-2018/0939 edition 1
ATLAS ROKER EPS	ITB-KOT-2020/1188 Issue 1

ATLAS SILICONE-SILICATE RENDER is a component of a complex thermal insulation system with renders

Name of the system	European Technical Assessment Number
ATLAS	ETA 06/0081 (24/06/2016)
ATLAS ROKER	ETA 06/0173(19/07/2016)
ATLAS GRAWIS	ETA-16/0933(30/12/2016)

Rendering

Substrate preparation

The substrate should be:

stable - rigid, seasoned and primed,
dry,

even - irregularities and defects should be filled in using e.g. ATLAS ZW 330, ATLAS PLASTERING MORTAR or adhesive mortars for making the reinforcement layer in thermal insulation systems; before repairs, the substrate should be primed with ATLAS UNI-GRUNT or ATLAS UNI-GRUNT ULTRA,

cleaned - from layers that may impair adhesion of render, especially from dust, dirt, lime, oil, grease, wax, oil and emulsion paint remains; if the substrate is infested with biological infestation (fungi, algae, etc.) they must be removed with ATLAS MYKOS NR 1 or MYKOS PLUS.

Specific requirements for substrates

Substrate type	Seasoning requirements	Method of priming
reinforced layer in ETICS systems, made of ATLAS STOPTER K-100, ATLAS STOPTER K-50 or ATLAS HOTER U2-B mortars	min. 3 days*	does not require a render base
reinforced layer in ETICS systems, made of other ATLAS adhesive mortars	min. 3 days*	ATLAS SILKON ANX or ATLAS CERPLAST
new cement renders made from ATLAS ready-mixed render mortars, traditional cement and cement-lime renders	min. 7 days/1 cm thickness*, moisture content 4%	
concrete substrates	min. 28 days*, moisture content < 4%	
existing paint coatings with good adhesion to the substrate in interior applications	no requirements	
gypsum substrates	moisture content < 2%	Pre-priming with ATLAS UNI-GRUNT appropriate ATLAS SILKON ANX or ATLAS CERPLAST
gypsum plasterboards and fibre cement boards, firmly fixed in accordance with the manufacturers' recommendations and the rules of the trade		

*) - Note: applies to bonding conditions: T= +20° C, 50 % humidity

Preparation of the rendering mix

The render is supplied as a ready-to-use mass. It must not be combined with other materials, diluted or thickened. Immediately before use, the mass should be stirred to even out the consistency.

Application of the mass

Apply the mixture with a smooth stainless steel trowel in an even layer of aggregate thickness. Remove excess material back into the bucket and stir. The render of grain size up to 1.5 mm can be applied by machine - use of an aggregate machine is recommended:

- Wagner PC 830/Wagner C330, nozzle 6 mm, working pressure 2.2 bar, feed rate 1.5/10,
- Graco textspray RTX 5500 PX, 8 mm inner nozzle, 6 mm outer nozzle, 2/6 feed.

The working pressures given are indicative for standard hose lengths. For longer hoses, the pressure should be determined directly before application on site.

Before applying the render, a small amount of ATLAS SILKON ANX or ATLAS CERPLAST compound should be passed through the hose of the unit. The effect of this action is to wet the hose and avoid clogging.

The texture of hand-applied and machine-applied render differs from each other, which may result in slight colour differences depending on the degree of surface development. For this reason, it is not permissible to combine different application technologies on the same object.

Invoicing

The freshly hand-applied render should be textured with a plastic trowel by trowelling in a circular motion. Machine-applied render should not be textured.

Render restoration

Refreshing the façade after many years of use can be done with the following façade paints: acrylic ATLAS SALTA E and silicone ATLAS SALTA N.

Consumption

Consumption of silicone render with a granulation of up to 1.5 mm:

- from 2.2 kg/m² when applied by hand,
- from 1.9 kg/m² when applied mechanically.

Consumption of silicone render with a granulation of up to 2.0 mm:

- from 2.8 kg/m² when applied by hand,

The indicated wear and tear applies to even substrates in accordance with the Technical Conditions for the Execution and Acceptance of Construction Work ITB 2020.

The average consumption of render when applied mechanically will be lower than that given for manual application. This is due, among other things, to the different structure of the render obtained (less aggregate compaction).

The exact consumption value can be determined by a test carried out on the rendered substrate.

Packaging

Plastic buckets 25 kg

Safety information

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

Storage and transport

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

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

Important additional information

It is necessary to determine experimentally (for a given type of substrate and given weather) the maximum surface area possible in one process cycle (stretching and rubbing).

The material should be applied using the wet-on-wet method, not allowing the smeared batch to dry before the next batch is applied. Otherwise the joint will be visible. Technological breaks should be planned in advance, e.g.: in corners and folds of the building, under the corners and folds of the building, under drain pipes, at the junction of colours, etc.

The rendered surface should be protected both during the work and during the drying out period of the render, from direct sunlight, wind and precipitation.

The drying time of the render, depending on the substrate, temperature and relative air humidity, is approximately 24 hours. In conditions of increased humidity and a temperature of approx. +5 °C, the setting time of the render may be prolonged.

In order to avoid possible differences in colour shades, render of the same date of manufacture should be applied to one surface.

Dark, intense colours of the render (HBW < 20) are recommended for use on limited areas of the façade (architectural details) due to increased absorption of solar radiation.

The use of the product on horizontal surfaces exposed to permanent direct contact with water and snow, on surfaces exposed to dampness due to capillary rise of moisture, is excluded.

Clean the tools with clean water immediately after use. Use ATLAS RESIN AWAY to remove difficult to remove residues of the set compound.

The information contained in this Technical Data Sheet is a basic guideline for the use of the product and does not relieve the user of the obligation to carry out the work in accordance with the rules of the art of construction and safety regulations.

With the issue of this Technical Data Sheet, all previous ones are no longer valid. The documents accompanying the product are available at www.atlas.com.pl.

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Update date: 2022-03-29