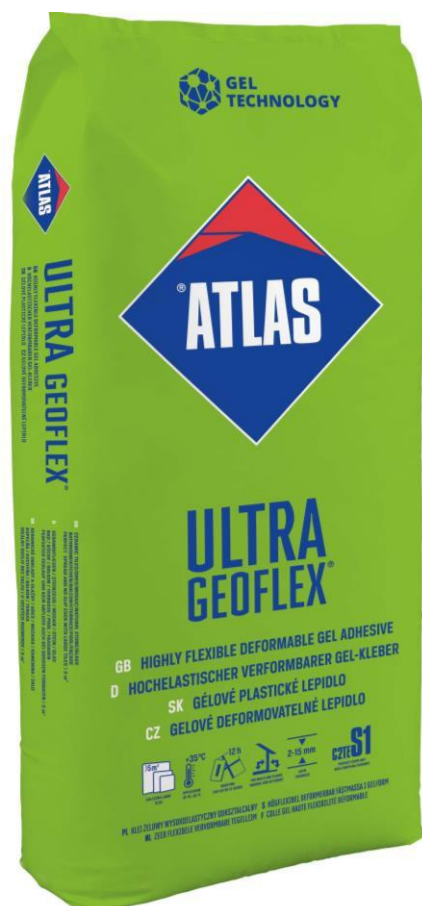


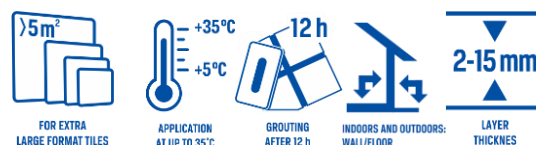


C2TE S1
PRODUCT CONFORMS
TO THE EUROPEAN STANDARD

ATLAS ULTRA GEOFLEX

highly elastic deformable gel adhesive (2-15 mm)

- ceramic tiles, marble, mosaic, stone, glass
- bathroom, kitchen, balcony, terrace, swimming pool, façades
- perfect distribution and no run-off even with mega- formats > 5 m²
- the most difficult substrates, including metal, OSB boards, composite panels, old ceramic tiles, floor heating,
- two different mixing ratios – for a viscosity in accordance with the needs



UNIQUE GEL TECHNOLOGY

The ATLAS ULTRA GEOFLEX adhesive formulation uses the innovative technology of silicate gel. The silicate gel has the unique ability to bind water. The gel fills the pores formed at the stage of adhesive setting through the network of inorganic bonds. Accumulation of a part of the mixing water ensures complete cement hydration, regardless of the type of the tiles. Thanks to appropriate water management, which is necessary to complete the setting process, the gel adhesive ensures full adhesion to substrates of various absorbency levels.

The use of the silicate gel technology and white cement gives the following benefits:

- all types of cladding, both absorbent and non-absorbent, can be adhered
- the best possible adjustment of the adhesive consistency to the user's individual preferences and specific application needs, by dosing water in a much wider range than in the case of traditional adhesives,
- adhesive mortar spreads perfectly under the tiles, which improves adhesion and durability of fixing, especially in outdoor applications,
- safe adhering of tiles on substrates exposed to direct sunlight, both during tiling and adhesive mortar bonding (e.g. on balconies, terraces, etc.).

Properties

ATLAS ULTRA GEOFLEX is manufactured as a dry mix of top-quality cement binder, aggregates and special natural and synthetic modifiers.

Highly elastic – deformability S1 – compensates substrate deformations and internal stresses.

A wide range of adhesive layer thicknesses (2-15 mm) allows for:

- thin-layer adhering of tiles on an even surface,
- thin-layer adhering of tiles on an uneven substrate, preceded by substrate levelling,
- thick-layer adhering of tiles on an uneven substrate without substrate levelling.

No slip when adhering tiles of any type, including large-format tiles and stone tiles - tiles can be adhered "from the top down" without need for support during installation.

High stability of large-format tiles (even with an area of more than 5 m²) laid on horizontal substrates - the tiles do not sink in the mortar layer.

The tiles can be walked on and grouted after only 12 hours – thanks to accelerated setting and drying of mortar under tiles.

Recommended for laying tiles in drinking water tanks, food industry facilities, healthcare facilities, nurseries, kindergartens, etc..

Intended use

TILE TYPES	
glazed tiles	+
terracotta	+
porcelain stoneware	+
glazed stoneware	+
natural stone (granite, marble, travertine, syenite, slate etc.) and other tiles with high water absorption	perform an application test *
clinker	+
stoneware	+
ceramic mosaic tiles	+
glass mosaic tiles	perform an application test*
glass, coloured, printed tiles etc.	perform an application test* and check the instructions of the tile manufacturer
concrete / cement tiles	+
composite panels	+
thermal and sound insulation panels	+

*application test is described in Important additional information

TILE FORMATS	
all tile formats, even with an area of more than 5 m ²	+
slim tiles	+

TYPES OF BUILDINGS	
residential housing	+
public and education facilities, office buildings, health care facilities	+
retail and service buildings	+
religious buildings	+
industrial facilities and multi-storey garages	+
industrial warehouses	+
communication facilities	+
SPA facilities	+

LOCATION OF APPLICATION	
low-traffic areas	+
medium-traffic areas	+
high-traffic areas	+
little-used rooms in all types of buildings	+
kitchens, bathrooms, laundries, garages (in single-family houses)	+
terraces	+
balconies, loggias	+
prefabricated outside stairs	+
outside beam stairs, e.g. girder stairs	+
passageways	+
façades (including on thermal insulation systems)	+
building plinth claddings	+
process tanks, swimming pools, fountains, hot tubs, balneological facilities (without the use of aggressive chemicals)	+
drinking water tanks	+
saunas	+
showers, washing plants, areas washed down with plenty of water	+

TYPE OF SUBSTRATE - standard	
cement floors and screeds	+
anhydrite screeds	+
cement and cement-lime renders	+
gypsum plasters	+
cellular concrete wall	+
silicate brick or perforated brick wall	+
clay brick or perforated brick wall	+
gypsum block wall	+

TYPE OF SUBSTRATE - difficult	
concrete	+
terrazzo	+
mineral, dispersion and reactive sealing coatings	+
dry gypsum board substrates	+
floor screeds (cement or anhydrite) with embedded water or electric heating	+
floor screeds with embedded heating mats	+
plastered wall heating	+
gypsum plasterboards	+
gypsum fibre boards	+
cement fibre boards	+
old ceramic or stone tiles (tile on tile)	+
resin varnishes for concrete bonded to substrate	+
dispersion, oil-based paint coats bonded to substrate	+
plank floors (thickness >25mm)	+
wood-based flooring panels, minimum 22 mm thick, fixed with ATLAS M-System fasteners	+
OSB/3, OSB/4 or particleboards on the floor (thickness > 25 mm)	+
OSB/3, OSB/4 or particleboards on the wall (thickness >18 mm)	+
metal and steel surfaces	+
plastic surfaces	+

ATLAS ULTRA GEOFLEX adhesive is also used for filling the above-mentioned standard and difficult substrates.

Technical data

Bulk density	1.25 g/cm ³
Mixing ratios of water / dry mix	0.27 ÷ 0.36 l / 1 kg 1.35 ÷ 1.8 l / 5 kg 6.08 ÷ 8.10 l / 22.5 kg 6.75 ÷ 9.00 l / 25 kg
Min. / max. adhesive thickness	2 – 15 mm
Ambient and substrate temperature during mixing and during the works	from +5 °C to +35 °C
Curing time	5 minutes
Pot life*	approx. 4 hours
Open time*	at least 30 minutes
Adjustability*	20 minutes
Floor access / cement grout application*	after 12 hours
Epoxy grout application*	after 48 hours
Full service load – foot traffic*	after 3 days
Full service load – vehicle traffic*	after 14 days
Full load with water - pool /tank*	after 14 days

*) the times given in the table are recommended for application conditions at a temperature of about 23 °C and humidity of 55 %.

Technical requirements

The product complies with the requirements of PN-EN 12004+A1:2012 for C2TE S1 class adhesive - cement adhesive for tiles, with improved performance, with extended open time and reduced run-off, deformable, for indoor and outdoor use, for walls and floors.

ATLAS ULTRA GEOFLEX (2019) Declaration of performance no. 194/1/CPR EN 12004:2007+A1:2012	
Intended use: any tiling indoors and outdoors	
Reaction to fire	A1/A1 _{fl}
Adhesion strength expressed as - the initial adhesion	≥ 1.0 N/mm ²
Adhesion strength under conditioning / thermal aging conditions expressed as: - adhesion after thermal aging	≥ 1.0 N/mm ²
Adhesion strength under water / moisture conditions expressed as: - adhesion after immersion in water	≥ 1.0 N/mm ²
Adhesion strength under freeze-thaw cycles expressed as: - adhesion after freeze-thaw cycles	≥ 1.0 N/mm ²

Substrate preparation

The substrate should be:

stable – sufficiently strong, resistant to deformation, free of substances that reduce adhesion and well cured.

even – the maximum thickness of the adhesive is 15 mm, substrates with large irregularities can be levelled using, for example.:

- ATLAS ZW 330 mortar,
- ATLAS MMS, SMS, SAM or POSTAR floor screeds.

cleaned – from layers that may impair adhesion of the adhesive, in particular dust, dirt, lime, oil, grease wax, residues of oil and emulsion paints. The substrate covered with algae, mould etc. should be cleaned and protected with:

- ATLAS MYKOS PLUS,

primed when the substrate has excessive or heterogeneous absorbency:

- ATLAS GRUNT NKP (ready to use – no dilution),
- ATLAS UNI-GRUNT,
- ATLAS UNI-GRUNT ULTRA,

Covered with a bonding primer when the substrate has low absorbency or is covered with layers that limit adhesion,

- ATLAS ULTRAGRUNT – recommended for critical substrates,
- ATLAS GRUNTO-PLAST,

Insulated – when laying tiles on substrates exposed to water:

- ATLAS WODER E,
- ATLAS LIQUID FOIL WODER W,
- ATLAS WODER SX
- ATLAS WODER DUO,

Detailed information on the preparation of the substrate, depending on its type, can be found in the table at the end of the Technical Data Sheet.

Laying the tiles

Preparation of the adhesive

Pour the material from the bag to a container with a measured amount of water (ratios provided in the Technical Data) and mix it with a slow-speed mixer drill for mortar, until uniform consistency is obtained. Let the mixed adhesive rest for 5 minutes and mix again. Once the adhesive has been prepared in this manner it must be used up within about 4 hours.

Applying the adhesive

First rub a thin layer of the adhesive into the substrate and then apply a thicker layer of the adhesive shaping it immediately with a notched trowel. If possible, move a notched trowel in one direction. On walls, shape the adhesive in a vertical direction.

For floor tiles, outdoor tiles and large-size tiles, apply the adhesive to the entire surface (if necessary, use the combined method involving the application of the adhesive mortar to the substrate and the bottom surface of the tile).

Laying the tiles

After spreading on the substrate, the adhesive retains its properties for about 30 minutes (at a temperature of approx. 23 °C and humidity of 55%). During this time, place the tile and press firmly to the applied adhesive (the contact surface of the tile with the adhesive should be even and as large as possible - minimum 2/3 of the tile surface). When pressing the tiles, regularly remove excess adhesive from the joints.

Maintain the appropriate width of the joints depending on the tile size and the conditions of use.

Adjusting the tile position

The tile position can be adjusted by gently moving it in the adhesion plane. This can be done up to about 20 minutes from the moment the tile is pressed (at a temperature of approx. 23 °C and humidity of 55%).

Grouting and use of the tiled floor

Grouting should be done using ATLAS mortars. Stepping on the cladding and grouting is possible after approx:

- 12 hours for ATLAS CERAMIC GROUT, ATLAS ELASTIC GROUT,
- 48 hours for ATLAS EPOXY GROUT

The mortar reaches its service strength after 3 days (relevant information can be found in the Technical Data). Expansion joints between tiles, joints along wall corners, joints at sanitary facilities should be filled with ATLAS ELASTIC SANITARY SILICONE or ATLAS SANITARY SILICONE SILTON S.

Consumption

The average adhesive consumption given in the table refers to the application on an even substrate. The substrate irregularities increase the specific consumption of the adhesive mortar.

Tile size [cm]	Place of application	Recommended size of trowel notches [mm]	Consumption [kg/m ²]
2 x 2	wall	4	1.5
	floor	4	1.5
10 x 10	wall	4	1.5
	floor	6	2.3
15 x 60	wall	6	2.3
	floor	8	2.9
20 x 25	wall	6	2.3
	floor	8	2.9
25 x 40	wall	6	2.3
	floor	8	2.9
30 x 30	wall	6	2.3
	floor	8	2.9
30 x 60	wall	8	2.9
	floor	10	3.5
40 x 40	wall	8	2.9
	floor	10	3.5
50 x 50	wall	8	2.9
	floor	10	3.5
60 x 60	wall	10	3.5
	floor	12	4.3
over 60 x 60 e.g. 90 x 90, 120 x 20, 300 x 100	wall	10	3.5
	floor	12 (trowel with semi-circular teeth)	6.8
Plank tiles*, e.g. 20 x 90 or 15 x 100	wall	8	2.9
	floor	10	3.5

* combined tiling method is recommended for plank tiles

Packaging

Plastic bags of 25 kg

Alubag 5 kg

Safety information

The product has a Hygiene Certificate issued by the National Institute of Public Health.

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

The shelf life (usability) of the product is 12 months from the production date on the bag. The shelf life of mortar in alubag in conditions as specified is 24 months from the production date shown on the packaging.

Important additional information

The adhesive spreadability beneath a tile is reached when using the upper mixing ratio, i.e. approx. 0.36 l per 1 kg of dry mix. No slip is reached when using the lower mixing ratio, i.e. approx. 0.27 l per 1 kg of dry mix.

All indicated waiting periods, technical parameters of the product, etc. refer to standard setting conditions, i.e. a temperature of +23 °C (+/- 2 °C) and relative humidity of 55 % (+/- 5 %) and to substrates defined in PN-EN 1323 and tiles acc. to PN-EN 176. In other thermal and humidity conditions the time indicated may vary.

Do not wet the tiles before adhering. When determining the adhesive thickness under the tiles, consider the geometric deviation of tiles shape, e.g. plane warping. For fixing tiles that may discolour when in contact with grey cement, use adhesives based on a white cement binder.

Carry out test application prior to fixing tiles or glass elements. To do this, adhere one tile to the substrate. The bonding area should be 60% of the tile area (leave 40% of a tile with no contact with adhesive). Check the tile appearance after 2-3 days. The test is passed when there is no difference of shade between the tile surface in contact and not in contact with the adhesive.

Open time, from applying the adhesive to the substrate to placing the tiles on it, is limited. To check whether it is still possible to fix the tiles, a simple test is recommended. Just press your fingers against the adhesive. If the adhesive remains on your fingers, you can fix the tiles. If the adhesive does not stick to your fingers, remove the adhesive from the substrate and apply a new layer.

After using the adhesive, clean and rinse the tanks and equipment in contact with drinking water thoroughly with water before putting into use.

Clean tools with clean water immediately after use. Remove difficult to remove residues of set adhesive with ATLAS SZOP cleaner.

The information included in the Technical Data Sheet constitutes basic guidelines concerning the use of the product and does not

release from the obligation to conduct work according to the best construction practices and health and safety at work regulations. On the date of issue of this Technical Data Sheet, all previous Technical Data Sheets become invalid. The accompanying documents for the product are available at www.atlas.com.pl.

The content of the Technical Data Sheet as well as the symbols and trade names used in it are the property of Atlas sp. z o. o. Their unauthorized use will be sanctioned.

Updated on: 2024-12-02

The detailed requirements for the substrate preparation are given in the table below. Before starting work, read also the product data sheets of the products listed in the table. The times given in the table are recommended for application and curing conditions at a temperature of about 20°C and humidity of 50 %.

Newly made ATLAS POSTAR 10 cement floor screeds	Moisture content of the screed 4.0 % (by CM method) - after approx. 1.5 days for a screed thickness of 1.0-3.0 cm - after approx. 3 days for a screed thickness of 3.1-5.0 cm - after approx. 9 days for a screed thickness of 5.1-10.0 cm
Newly made ATLAS POSTAR 20 cement floor screeds	Moisture content of the screed 4.0 % (by CM method) - after approx. 1 day for a screed thickness of 1.0-3.0 cm - after approx. 2 days for a screed thickness of 3.1-5.0 cm - after approx. 5 days for a screed thickness of 5.1-8.0 cm
Newly made ATLAS POSTAR 60 cement floor screeds	Moisture content of the screed 4.0 % (by CM method) - after approx. 6 hours for a screed thickness of 1.0-3.0 cm - after approx. 12 hours for a screed thickness of 3.1-5.0 cm - after approx. 40 hours for a screed thickness of 5.1-8.0 cm
Newly made ATLAS POSTAR 80 cement floor screeds	Moisture content of the screed 4.0 % (by CM method) - after approx. 3 hours for a screed thickness of 1.0-3.0 cm - after approx. 6 hours for a screed thickness of 3.1-5.0 cm - after approx. 18 hours for a screed thickness of 5.1-8.0 cm
Newly made ATLAS SMS 15 cement floor screeds	Moisture content of the screed 4.0 % (by CM method) - after approx. 8 hours for a screed thickness of 1-15 mm
Newly made ATLAS SMS 30 cement floor screeds	Moisture content of the screed 4.0 % (by CM method) - after approx. 18 hours for a screed thickness of 3-5 mm - after approx. 48 hours for a screed thickness of 6-10 mm - after approx. 72 hours for a screed thickness of 11-20 mm - after approx. 96 hours for a screed thickness of 21-30 mm
Other cement screeds	Compression strength: minimum 12 MPa. Curing: minimum 28 days Optimal moisture content < 4% by weight
Newly manufactured hybrid floor screeds ATLAS MMS 60	Moisture content of the screed 4.0 % (by CM method) - after approx. 14 days for a screed thickness 20-40 mm - after approx. 21 days for a screed thickness of over 40 mm
Newly made anhydrite floor screeds ATLAS SAM 100	Moisture content of the screed 1.0% (by CM method) - approx. 4 days for thickness between 0.5-3.0 cm
Newly made anhydrite floor screeds ATLAS SAM 200	Moisture content of the screed 1.0% (by CM method) - approx. 10 days for thickness between 2,5-4,0 cm - approx. 21 days for thickness from 4,1 do 6,0 cm If a white Surface coating appears when drying the screed, remove the coating mechanically by grinding and then vacuum the entire surface

Cement and anhydrite screeds with underfloor heating (heating screeds)	Attention. When the subfloor is a screed with sunken underfloor heating, it must absolutely be heated. Information on the heating of ATLAS underlays is given in their technical sheets. Tiles with ATLAS GEOFLEX EXPRESS adhesive can be adhered to both switched on and off underfloor heating: - when the tiles are adhered on a screed with the underfloor heating switched off, then the underfloor heating may be started after a minimum of 7 days, - when the tiles are installed on a screed with the underfloor heating system switched on, the temperature of the subfloor must be stabilised and may not exceed +35 °C. For the next 14 days after the installation of the tiles, the temperature of the subfloor must not exceed +35 °C. It is not possible to adhere tiles onto other types of operating (switched on) underfloor heating, embedded e.g. in an adhesive layer.
Silicate brick or perforated brick walls, ceramic block or cellular concrete walls	Two-layer plaster (rendering coat + floating coat) floated "rough" is required. Tiling unplastered walls is possible only if the geometrical requirements for the substrate are met. In such a case, it is necessary to make the flush joint wall (or to supplement the joints), and to repair any defects and irregularities with the use of ready-made mortars.
Cement and cement-lime plasters made of ready-made ATLAS mortars	Curing: minimum 3 days for each 1 cm of thickness Optimal moisture content <4% (by CM method)
Other cement and cement-lime plasters	Category: minimum CS III Curing time: minimum 7 days for each 1 cm thickness
Gypsum plasters	Recommended compression strength > 4 MPa If the gypsum plaster is made in a wet room, protect the plaster carefully against moisture, e.g. by applying an ATLAS WODER E or ATLAS LIQUID FOIL WODER W waterproofing coating. Remove gypsum finishing coats
Level the substrate using ATLAS ZW 330 mortar	Moisture content of the screed 1.0% (by CM method) - 5 hours with a layer thickness of 5 mm - 10 hours with a layer thickness of 10 mm - 15 hours with a layer thickness of 15 mm - 48 hours with a layer thickness of more than 20 mm
Concrete substrates	Curing time: minimum 3 months Optimal moisture content < 4% by weight Concreting separators and other substances that may impair adhesion must be removed Repair defects, chipping and other irregularities with one of the mortars: - ATLAS ZW 330 - ATLAS FILER S Prime with ATLAS ULTRAGRUNT
Newly made ATLAS waterproofing	- ATLAS WODER E – tiling can start after 2 hours (for damp-proofing) and after 4 hours (for waterproofing) - ATLAS LIQUID FOIL WODER W – tiling can start after 24 hours - ATLAS WODER DUO – tiling can start after 12 hours - ATLAS WODER SX – tiling can start after 40 hours
Terrazzo	Degrease the surface thoroughly; in the case of pasted terrazzo, remove the top part or all of it and make a new base. Prime with ATLAS ULTRAGRUNT.
Concrete drinking water tanks and process tanks, swimming pools made of waterproof concrete	Grinding, sandblasting or hydro-sandblasting required to open surface pores.
Water tanks (drinking water tanks, retention tanks, etc.), swimming pools, shower trays, etc., surfaces insulated with flexible slurries or liquid foil	If required, gently clean the waterproofing surface so as not to damage the waterproofing
Oil paint coatings and resin varnishes	Remove coatings with low adhesion to the substrate mechanically. Stable well bonded coatings: grind and remove dust; prime oil coatings with ATLAS ULTRAGRUNT. Remove the gypsum substrate levelling fillers.

OSB boards and plank floors	- the layer arrangement should be designed and made in such a manner as to prevent deformation that may damage the ceramic tiles - OSB / 3 and OSB / 4 boards (according to PN-EN 300: 2007) with a minimum thickness of 25 mm can be used on floors (22 mm in case implement ATLAS M-system) and boards with a minimum thickness of 18 mm can be used on walls - curling under service loads is not allowed. - to obtain the proper adhesion for the tile adhesive, roughen the substrate surface with 40-60-grit sandpaper and remove any dust - prime with ATLAS ULTRAGRUNT - In rooms with increased humidity, take into account the risk of OSB board swelling (check the parameters declared by their manufacturer) or plank deformation. To eliminate the risk, protect the substrate against moisture. ATLAS WODER LIQUID FOIL W or WODER E waterproofing can be used for this purpose
Existing ceramic or stone tile claddings (only indoors)	- check the adhesion of the tiles to the substrate by tapping - the old tiles detached from the substrate must be removed - fill defects with e.g. ATLAS ZW 330 mortar - thoroughly clean and degrease the surfaces of the remaining tiles. - roughen the glazed tiles using a grinder with a diamond disc. - remove any dust - prime with ATLAS ULTRAGRUNT.
Metal and steel surfaces	Cleaning and rust removal, priming with a dedicated primer, e.g. ATLAS ULTRAGRUNT, required. In the case of cladding that will be exposed to dynamic loads, the following should be used for priming ATLAS EPO-S universal epoxy binder with quartz sprinkling
Plastic surfaces	Cleaning, grinding and priming with ATLAS ULTRAGRUNT required. To confirm adhesion to plastic substrates, carry out a test of adhesion to the substrate before laying the tiles.