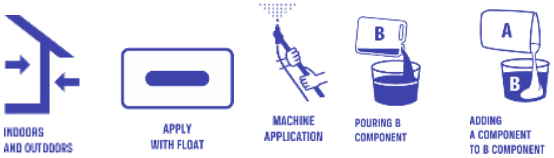
ATLAS WODER DUO

two-component waterproofing

- waterproofing beneath ceramic tiles
- fibres reinforced, bridges the cracks
- for swimming pools, balconies, terraces, bathrooms
- for insulation of foundations and basements from the in- side



PROPERTIES

ATLAS WODER DUO is a two–component material obtained by mixing component A (cement-based dry mix, fillers and modifiers) and component B (white emulsion containing synthetic resins and modifiers) in 3:1 weight ratio.

Watertightness – minimum 0.7 MPa (equivalent of pressure of 70 m water column) for coating 2.5 mm thick. Ensures complete substrate protection against water under pressure.

Resistant to negative water pressure (when pressure acts from side opposite to coating) – min. 0.5 MPa.

Great bonding to substrate – min. 1.03 MPa to concrete (standard requires 0.5 MPa), min. 0.7 MPa for ceramic brick.

Quick setting – application of subsequent coat possible after 3 hours, application of ceramic cladding just after 12 hours.

High water vapour permeability – water vapour diffusion coefficient$\mu \leq 1{,}700$ which enables use on damp substrates.

Chemical resistance – set mortar is resistant to communal sewage, liquid manure, aggressive groundwater – environmental exposure class XA2.

High elasticity – owing to great content of polymers, specially selected fine aggregate fillers and additional structural reinforcement with microfibers, the mortar fills and secures cracks up to 1 mm wide.

High mechanical resistance – owing to use of reinforcing fibers and specially selected polymer resins the mortar offers improved resistance to mechanical damage and impacts. Coating is resistant to temporary direct foot traffic loads.

Frost – resistance – coating watertightness does not deteriorate during frost.

Protection of ferroconcrete surface – 2 mm thick coating gives effective protection of concrete surface against carbonatization and
further corrosion of reinforcing steel. The value of S_d coefficient determined for carbon dioxide is not lower than 70 m.

Recommended for old, damp buildings – water vapour permeability combined with watertightness makes the mortar an excellent solution for waterproofing of partitions in heritage buildings.

Resistant to UV radiation and weathering.

Holds Hygienic Attest for contact with drinking water – allows for safe waterproofing of reservoirs with drinking water.

Low emission of VOC – safe for users, does not emit harmful substances.

RESISTANCE OF WODER DUO COATING	
acidified water up to pH 4.5	+
liquid manure	+
gas oil	+
sodium hypochlorite of free chlorine concentration up to 1.0 mg/l	+
aggressive environment of environmental exposure class XA1 and XA2 acc. to PN-EN 206+A1:2016	+

USE

ATLAS WODER DUO is designed for application of elastic damp and waterproofing in wet rooms, on terraces, balconies, underground building elements (foundations, cellar walls, etc.), plinth zones, various tanks.

It enables flexible protection of corners and expansion joints - along with ATLAS TAPE and SEALING CORNERS or ATLAS HYDROBAND 3G tape and corners, protects the edges of wall and floor connections and expansion joints.

Seals surfaces around walls and floors, around water and sewage pipe penetrations - together with FLOOR RINGS OR WALL RINGS embedded in it.

WATERPROOFING TYPE	
outdoor - light (water flow)	+
outdoor - medium (standing water)	+
outdoor - heavy (water under pressure)	+
indoor - light (water flow)	+
indoor medium (standing water)	+
indoor heavy (water under pressure)	+

OBJECT TYPE	
residential housing	+
public access, educational, office, healthcare buildings	+
commercial and service buildings	+
sacral buildings	+
industrial construction and multi-storey garages	+
industrial warehouses	+
infrastructure	+
hotels, SPA objects	+

PLACE OF APPLICATION	
surfaces of low traffic	+
surfaces of moderate traffic	+
surfaces of heavy traffic	+
kitchen, bathroom, laundry, garage (individual housing)	+
terraces	+
balconies, loggia	+
underground building elements – foundations, cellars	+
external slab stairs	+
external beam stairs, e.g. bracket stairs	+
communication routes (except of external stairs)	+
plinth cladding	+
technological tanks, pools, fountains, jacuzzi, balneotechnology (with no aggressive chemicals in use)	+
potable water tanks	+
liquid manure tanks	+
gas oil tanks	+
communal sewage tanks	+
fire-water tanks	+
sauna	+
showers, washes, rooms washed with plenty of water	+

SUBSTRATE TYPE - standard	
cement screeds and floors	+
anhydrite screeds	use ATLAS WODER E or ATLAS WODER W
cement, cement-lime plasters	+
gypsum plasters in damp and wet zones of rooms	use ATLAS WODER E or ATLAS WODER W
walls made of cellular concrete*	+
walls made of silicate brick or hollow blocks*	+
walls made of ceramic brick or hollow blocks*	+
walls made of gypsum blocks*	use ATLAS WODER E or ATLAS WODER W

* plastering is not required for walls with full joints

SUBSTRATE TYPE - difficult	
concrete	+
terrazzo	+
dry substrates made of plasterboards	use ATLAS WODER E or ATLAS WODER W
screeds (cement and anhydrite) with heating system embedded, water and electric one	+
plasters with wall heating system	+
plasterboards	+
gypsum-fibre boards	+
cement-fibre boards	+
existing ceramic and stone cladding ("tile on tile")**	+
concrete resin lacquers bonded to the substrate	+
paint coats made of epoxy resins	+
timber floors (thick. > 25 mm)	+
OSB/3 and OSB/4 and chipboards on floors (thick. > 25 mm)	+
OSB/3 and OSB/4 and chipboards on walls (thick. > 18 mm)	+
metal and steel surfaces***	+
plastic surfaces	+

** if bearing capacity confirmed and full joints technology used
*** protected against corrosion

USE OF ATLAS WODER DUO AS PROTECTIVE COATING	
posts, downstand beams in ferrocon-crete constructions	+
concrete elements of road and train overpasses	+
prefabricated ferroconcrete elements	+

TECHNICAL DATA

Bulk density of component A	ca 1,85 g/cm³
Density of component B	ca. 1,00 g/cm³
Substrate and ambient temperature during application	from +8 °C to +30 °C
Max. single coat thickness	2 mm
Total thickness of sealing coat	1,5-3 mm
Pot life*	ca. 1 h
Open time (drying time)*	min. 30 min
Second coat application*	after ca. 3 h
Tiles	after ca. 12 h
Burial of trenches*	after ca. 72 h
Loading with water under pressure*	after ca. 7 dniach

* times given in the table are recommended for application conditions at approx. 20 ° C and 50% humidity

TECHNICAL REQUIREMENTS

The product conforms to PN-EN 14891:2012 standard Two-compo- nent, polymer-modified watertight cement product used in liquid form, resistant to chlorinate water (CM P), for outdoor use and in pools under ceramic tiles fixed with C2 adhesives (acc. to EN 12004 standard).

ATLAS WODER DUO (2019) Declaration of Performance No 096/1/CPR EN 14891:2012 EN 14891:2012/AC:2012	
Intended use: all applications under ceramic tiles installed outside and in swimming pools	
Initial bonding	≥ 0,5 N/mm²
Crack-bridging ability in standard conditions	≥ 0,75 mm
Durability - bonding: - after thermal ageing	≥ 0,5 N/mm²
Initial bonding durability: - after immersion of water	≥ 0,5 N/mm²
Initial bonding durability: - after chlorinate water action	≥ 0,5 N/mm²
Initial bonding durability: - after freeze-thaw cycles	≥ 0,5 N/mm²

WATERPROOFING

Substrate preparation

The substrate should be:

even and sound – i.e. strong, stable and free from dust, dirt, salt efflorescence and poorly bonded substrate elements, residues of old paints, oils, bitumen coatings and other substances which may impair the waterproofing bonding. Any stable substrate scratches wider than 1.0 mm and gaps must be mechanically widened and filled with cement mortar, e.g. ATLAS ZW 330, ATLAS TEN-10 or ATLAS MONTER T-5. Dusty substrates must be grinded, dedusted.and primed ATLAS UNI- GRUNT or ATLAS UNI-GRUNT ULTRA.

stabilized - freshly applied surfaces, e.g. plasters or floors can be waterproofed after appropriate stabilization, (refer: table Detailed guidelines concerning the substrate preparation, depending on its type.). Note!: during stabilization the substrate should be protected against precipitation.

dry - free from technological dampness or capillary action from the ground, dried after precipitation, flooding, etc. Just before mass application dry substrate should be moistened until matt-wet state (leave no puddles).

Detailed guidelines concerning the substrate preparation, depending on its type, are shown at the end of the document.

Mass preparation

The product is manufactured as a set consisting of two components: the dry mix (component A) and the emulsion (component B). The components are packed in separate packages constituting a ready to use set of appropriate mixing ratio. The mass preparation consists in pouring the liquid component (B) into an appropriate container, next steady dry mix pouring (A) and concurrent stirring until homogenous mass of uniform consistency and colour is formed (approx. 2 minutes). It is advisable to use a low speed mixer with a drill. The mass can be used after approx. 5 minutes and remixing. It should be used up within approx. 60 minutes. Note: if partial use of the product is assumed, prepare the mass by keeping the weight ratio of components (3 parts of dry component A and 1 part of emulsion B).

Waterproofing

The sealing coat should be applied in minimum two waterproofing coats. The first coat is always applied with a brush by rubbing the mass well into the substrate to close the existing pores. Start the application from points where ATLAS SEALING TAPES, CORNERS, RINGS or ATLAS HYDROBAND accessories are to be used. These accessories are embedded in the freshly applied mass. The tape should overlap with min. 5 cm. It is advisable to apply waterproofing both on substrate and tape backside. Excessive amount of mass should be pressed out with a trowel or a float. Depending on needs, in order to obtain proper consistency, 3% of water can be added to the mixed mass for application of the first coat. The second coat can be applied with a brush, a roller or a float once the first coat dries completely (after approx. 3-4 hours). Same technological breaks must be kept in case of application of subsequent coats. Keep the same thickness of each individual coat – this ensures optimum conditions of waterproofing use. Caution: It is not recommended to apply a single coat greater than 3.0 kg/m2. In higher temperature the coat size should not exceed 1.5 kg/m2.

Use of insert

order to strengthen the waterproofing coat one can use interlining insert of weight 50 g/m². Application of waterproofing with insert should be carried out as follows:

STEP 1. Rub ATLAS WODER DUO into matt-wet substrate with a brush.

STEP 2. After setting, apply ATLAS WODER DUO with a notched trowel 4 mm.

STEP 3. Put interlining into unset mass, press it with a smooth trowel side and ensure uniform and complete filling with mass beneath insert.

STEP 4. Apply subsequent coat of ATLAS WODER DUO. It can be applied in “wet on wet” technology or wet on set previous coat. Use a notched trowel 6 mm and smoothen the surface.

Machine application

Machine application of waterproofing can be carried out in one or two stages, depending on the designed waterproofing type, i.e. light, medium or heavy one. Light and medium waterproofing is applied in one cycle with coat up to 2.5 mm thick. Heavy waterproofing is applied in two stages, i.e. the second coat is applied when the first one sets with total waterproofing thickness of 3 mm.

One stage application – apply mass on the substrate uniformly so it coats surface completely, keep the coat approx. 2.5 mm thick. Just after application, smoothen fresh mortar with a smooth trowel or a feather edge, so an uniform coat is formed.

Two stage application - apply mass on the substrate uniformly so it coats surface completely, keep the coat approx. 1.5 mm thick. When it sets, apply the second coat similarly. Just after application, smoothen fresh mortar with a smooth trowel or a feather edge, so an uniform smooth coat is formed. The total waterproofing thickness should be min. 3 mm.

Leave to dry com

Recommended unit: Plastering unit WAGNER PC 1030. Nozzle: 6 mm. Speed: 3 on 10-point scale. Pressure: 8 bar.

Finishing works

The waterproofed surfaces must be protected against precipitation and free water action within approx. 12 hours and within 7 days against pressurized water action. The set coating must be covered with ceramic cladding (after approx. 12 hours). Ceramic cladding is required on surfaces exposed to mechanical damage.

CLASS OF ADHESIVES DEPENDING ON PLACE OF WATERPROOFING	
Indoors: bathrooms, kitchens, plumbing, etc	ATLAS ELASTYK ATLAS GEOFLEX line ATLAS PLUS line
Outdoors: balconies, terraces, pool basin, fountain, etc.	ATLAS PLUS line ATLAS GEOFLEX line

CONSUMPTION

The total coating thickness must be adjusted respectively to the conditions of water action on the waterproofed surface. Approximate consumption is 1.75 kg/m²/1 mm of the layer thickness.

WATERPROOFING TYPE	Coating thickness [mm]	Consumption [kg/m²]
light (flow water)	min. 1,5	approx. 2,6
medium (standing water)	min. 2,0	approx. 3,5
heavy (water under pressure)	min. 2,5	approx. 4,5
with insert	min. 2,5	approx. 4,5

PACKAGING

Set 32 kg: component A - paper bag 24 kg, component B – plastic drum 8 kg.
Set 16 kg in a plastic bucket: component A - paper bags 2 x 6 kg, component B - plastic drums 2 x 2 kg.

SAFETY INFORMATION

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

The product has a Hygienic Certificate for contact with drinking water. Water reservoirs designated for drinking water should be washed with water after the product stabilization.

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 of the product (use-by date) is 12 months from the date of manufacture on the packaging.

IMPORTANT ADDITIONAL INFORMATION

Not treated surfaces should be protected against soiling.

Low temperature and increased humidity extend the time of mortar setting. Avoid application in strong sunlight.

Any passages exposed to water under pressure should be protected with twisted ring sealers.

When waterproofing water tanks it is acceptable to execute coves made of ATLAS TEN-10 or ATLAS FILER S in the wall corners.

During setting the product is sensitive to frost. The waterproofed places should be protected during setting against precipitation within min. 12 hours.

Rooms where ATLAS WODER DUO has been applied should be aired for min. 28 days before use. In case of applications on floors this time can be reduced to 10 days.

The tools must be cleaned with clean water directly after use. Difficult to remove residues of the set waterproofing can be removed with the ATLAS CEMENT AWAY and ATLAS RESIN AWAY

The above information constitutes basic guidelines for the application of the product and does not release the user from the obligation of carrying out works according to engineering principles and OHS regulations. At the time of publication of this product data sheet all previous ones become void.

Updated on: 2022-09-08

Detailed guidelines concerning the substrate preparation, depending on its type.

Substrate type	Informacje dotyczące przygotowania podłoża
Freshly applied screed ATLAS SMS 15	**required screed moisture 4,0 % CM** – after approx. 8 hours for screed thickness 1-15 mm
Freshly applied screed ATLAS SMS 30	**required screed moisture 4,0 % CM** – after approx. 18 hours for screed thickness 3-5 mm – after approx. 2 days for screed thickness 6-10 mm – after approx. 3 days for screed thickness 11-20 mm – after approx. 4 days for screed thickness 21-30 mm
Freshly applied screed ATLAS SMS 80	**required screed moisture 4,0 % CM** - after approx. 4 days for screed thickness 25-40 mm - after approx. 6 days for screed thickness 41-60 mm - after approx. 9 days for screed thickness 61-80 mm
Freshly applied screed ATLAS POSTAR 10	**required screed moisture 4,0 % CM** – after approx. 1.5 day for screed thickness 1.0-3.0 cm – after approx. 3 days for screed thickness 3.1-5.0 cm – after approx. 9 days for screed thickness 5.1-10.0 cm
Freshly applied screed ATLAS POSTAR 20	**required screed moisture 4,0 % CM** – after approx. 1 day for screed thickness 1.0-3.0cm – after approx. 2 days for screed thickness 3.1-5.0 cm – after approx. 5 days for screed thickness 5.1-8.0 cm
Freshly applied screed ATLAS POSTAR 60	**required screed moisture 4,0 % CM** – after approx. 6 hours for screed thickness 1.0-3.0 cm – after approx. 12 hours for screed thickness 3.1-5.0 cm – after approx. 40 hours for screed thickness 5.1-10.0 cm
Freshly applied screed ATLAS POSTAR 80	**required screed moisture 4,0 % CM** – after approx. 3 hours for screed thickness 1.0-3.0 cm – after approx. 6 hours for screed thickness 3.1-5.0 cm – after approx. 18 hours for screed thickness 5.1-8.0 cm
Other screeds	**required screed moisture 4,0 % CM** – stabilized minimum 28 days
Screeds with floor heating	Before fixing the claddings should be approprietely heated.
Terrazzo	De-grease the surface thoroughly, in case of waxed terrazzo remove the top layer or whole layer and execute a new one.
Walls of bricks or silicate, ceramic hollow blocks or cellular concrete	Levelling coat required (plaster). Direct fixing onto rough wall is possible in case of appropriate substrate dimensional tolerance. In such case it is necessary to execute full joint wall (or re-fill the joints) and repair any gaps or irregularities with ready-to-use mortars.
Cement and cement-lime plasters made of ready-made ATLAS mortars	– stabilized min. 3 days* for each 10 mm of thickness; – optimum moisture content < 4% by weight.
Other cement and cementlime plasters	– stabilized minimum 7 days*.
Substrates levelled with ATLAS ZW 330	Stabilized minimum 5 h for each 5 mm thickness of levelling layer
OSB boards, chipboards and plank floors - the system of layers should be designed and made in a way that prevents deformation, which may lead to the destruction of the cladding.	- check the type of boards used, OSB / 3 and OSB / 4 boards (according to PN-EN 300: 2007) with a minimum thickness of 25 mm (22 mm in the case of installation on ATLAS M-System) can be used on the floors, and wall cladding min. 18 mm, - check the stability of the sheathing on the load-bearing structure, the boards cannot squeeze under operational loads, if necessary, tighten the additional, stiffening layer of the boards, - roughen the surface with 40-60 sandpaper, - clean the surface of the dust formed,
Concrete substrates	- stabilized minimum 21 days; - optimum moisture content < 4% by weight - remove residues of formwork oils and other substances which would impair bonding obligatorily. - holes, cracks and other gaps should be filled with ATLAS TEN-10 or ATLAS ZW 330 mortars.
Metal and steel surfaces	Cleaning and rust removal required, priming with a dedicated primer. Sprinkle dry quartz sand on freshly applied primer, e.g. with ATLAS EPO-S universal epoxy binder with quartz sprinkle.
Plastic surfaces	Cleaning and grinding required. In order to confirm the possibility of using the foil on plastic substrates, an adhesion test should be carried out.

*) The time shown in the table is recommended for the application in temperature 20 °C and humidity 50% (approx.).