



ATLAS POSTAR 10

traditional cement floor (10-100 mm)

- foot traffic after 24 hours, tilling after 36 hours
- abrasion-resistant
- for garages, workshops, storage areas
- for areas exposed to permanent moisture



Properties

ATLAS POSTAR 10 is produced as a dry mixture of Portland cement, quartz fillers and modifying additives.

Thick-plastic - the working consistency of the mortar allows easy distribution of the mix, blending and obtaining an even surface.

Compressive strength: $\geq 25.0 \text{ N/mm}^2$.

Flexural strength: $\geq 5.0 \text{ N/mm}^2$.

It has low linear shrinkage - minimal linear changes in the screed during drying (on the order of 0.6 mm/mb) limit the possibility of cracking.

It is suitable for manual laying - to be spread over the slats.

The mixture can be prepared in flow mixers.

Purpose

Forms a screed or floor with a thickness of 10-100 mm - layer thickness depends on the structural layout adopted (table below).

It can be used as a screed for flooring layers such as parquet - it is a highly cohesive screed with high resistance to shear forces occurring at the interface with the flooring layer, e.g. during expansion and contraction of the wood due to changes in its moisture content.

It is recommended for screeds or floors in residential buildings, warehouses, industrial facilities, etc.

Allows for the achievement of inheritances.

Suitable for use as an screed with underfloor heating - it conducts heat well.

Types of finishing layers - ceramic and stone tiles, epoxy flooring, PVC and carpet, parquet, panels

Types of arrangements that can be created:

- **bonded to substrate - thickness 10-100 mm** - substrate is good quality concrete, cement base (with or without underfloor heating)

- **on a separating layer - 35-100 mm thick** - when the substrate is of poor quality and does not provide adequate adhesion - dusty, cracked, oily, dirty, highly absorbent; the separating layer can be e.g. 0.2 mm thick PE foil.

- **Floating - 40-100 mm thick** - laid on thermal or sound insulation made of: polystyrene boards of the appropriate hardness, hardened mineral wool floor boards, etc.

- **heating installation** - the thickness over the heating installation should be **at least 35 mm**

Technical data

Bulk density (dry mix)	approx. 1.6 kg/dm^3
Mixing ratio water/dry mix	0.09 - 0.12 l / 1 kg 2.25 - 3.0 l / 25 kg
Min./max. thickness of screed or floor	10 mm / 100 mm
Maximum diameter of aggregate	3 mm
Linear changes	$\leq 0.06\%$
Temperature of the compound preparation and of the substrate and surroundings during the work	from $+5 \text{ }^\circ\text{C}$ to $+25 \text{ }^\circ\text{C}$
Consumption time	minimum 1 hour*
Stepping on the pad	after approx. 24 hours*

* times recommended for normal application conditions:

- temperature approx. $20 \text{ }^\circ\text{C}$

- humidity of 55-60%.

Technical requirements

ATLAS POSTAR 10 (2020) Declaration of Performance E173/CPR EAD 190019-00-0502: December 2019 European Technical Assessment ETA-20/0549 dated 30/06/2020	
Intended use: Cement-based floor screed for indoor and outdoor use. Layers of the floor screed may include an underfloor heating system. Floor screed, can be used as an abradable surface (floor) or covered with a finishing layer (e.g. ceramic or stone tiles, epoxy flooring, carpet or PVC flooring, parquet, floor panels).	
Reaction to fire	A1 _{fl}
Compressive strength - class	C25 (≥ 25 MPa)
Bending strength - class	F5 (≥ 5 MPa)
Abrasion resistance	A12 (≤ 12 cm ³ / 50 cm) ²
Flexural and compressive strength after freeze-thaw cycles, MPa:	
- compressive strength	≥ 25
- bending strength	≥ 5

Execution of the floor or screed

Substrate preparation

The substrate should be stable, clean, load-bearing and air-dry, while the method of preparation depends on the structural layout of the floor. General requirements for substrates:

- Cement floors or bases - more than 28 days old,
- concrete - age over 3 months,

A screed or floor that is bonded to the substrate. The substrate should be free of layers and elements that could weaken the adhesion, especially dust, lime, oil, grease, bituminous substances, paints, weak and detached parts of old substrates.

Immediately prior to the application of the screed, the substrate should be moistened with water and a contact layer made from ATLAS ADHER S mortar should be applied.

The contact layer has a liquid consistency and should be applied with a brush. It should be rubbed vigorously into the previously moistened substrate. When the contact layer dries before the main screed layer is applied, a second application is required.

Screed or flooring on a separation layer. The layer of separating material, e.g. PE foil, should be laid tightly, without folds and turned up against the walls (on expansion strips) at least to the height of the screed.

Screed or floating floor. Insulation boards should be laid tightly, on a level base, with the edges staggered. A separation layer should be made on top of the boards and turned up against the walls.

Screed in underfloor heating system. The heating system should be checked and fixed and, in the case of water heating, the pipes should be filled with water. It is recommended that the screed should be made in a single layer (with a stable systemic fixing of the heating system). During the work, the data contained in the technical design and the recommendations of the heating system manufacturers must be observed.

The first start-up of the underfloor heating (so-called warm-up) can be started 14 days after the screed has been poured. The warm-up should be carried out as follows. The temperature of the underfloor heating must be systematically increased by a maximum of

2 °C/24 hours until the highest operating temperature is reached. Then reduce the temperature as required until the heating is switched off.

The screed can be used in **prefabricated slab underfloor heating systems**. After laying out the mats, position the heating pipes in the appropriate place (max. pipe diameter 20 mm). Then fill in the pipe gaps with screed with a minimum screed thickness over the pipe of 35 mm.

Expansion joints

The screed or floor should be separated from the walls and other elements located in the pouring field by the ATLAS DILATATION PRO-FILE. The size of the working half should not exceed:

- in rooms of 36 m² and the side dimension should not be greater than 6 m,
- outside 5 m² and the side dimension should not be greater than 3 m.

Expansion joints should also be made in the thresholds of the rooms and around the supporting columns. Existing structural expansion joints of the substrate should be transferred to the screed or floor layer.

Preparation of the mortar

Pour the material from the bag into the container with water (see Technical Data) and mix until a homogeneous consistency is obtained. Carry out this operation mechanically, using a slow speed mixer with a mortar mixer, a flow mixer or a concrete mixer. The mix is suitable for use immediately after mixing and retains its properties for approximately 1 hour.

Application of the mass

All work must be carried out in accordance with the flooring technology. The use of directional guides is helpful in achieving even screed or floor surfaces. The slats should be positioned so that the thickness of the screed or floor corresponds to the assumed size and is not at any place lower than the minimum value adopted for the given construction system (bonded to the screed, on a separating layer, floating). Patch vibration or trowel tamping should be used to compact the mix and distribute it more thoroughly. Excess mortar is pulled down over the battens with a zigzag motion. The set technological field should be filled and levelled in approx. 1 hour. After approx. 3 hours, trowel and smooth the surface (as required).

Drying and care

The completed surface should be protected during the work and in the first period after its completion from too rapid drying, direct sunlight, low humidity or draughts. In order to ensure favourable setting conditions for the mortar, the freshly made surface should be sprinkled with water or covered with foil. Proper care leads to an increase in the strength of the product, but also prolongs the drying process. The heating of the room in which the screed or floor has been made should also be reduced. The drying time of the screed or floor depends on the thickness of the layer and the thermal and moisture conditions in the surrounding area. The screed or floor can be used (entering on to the screed) after about 24 hours and loaded after about 14 days.

Making successive layers

For detailed information on the seasoning of ATLAS POSTAR 10 screed prior to application of subsequent coats, please refer to the table at the end of the Technical Data Sheet.

Consumption

On average, 20 kg of mortar is used per 1 m² and for every 10 mm of layer thickness.

Packaging

25 kg paper bags.

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

Using the wrong amount of water to prepare the mix leads to a reduction in the strength performance of the floor or screed.

Before installing PVC flooring, a smoothing layer of ATLAS SMS 15 or ATLAS SMS 30 should be made on the ATLAS POSTAR 10.

Tools should be cleaned with clean water, immediately after use. Mortar residues that are difficult to remove can be removed with ATLAS SZOP.

The information contained in the Technical Data Sheet is a basic guideline for the use of the product and does not release the user from the obligation to carry out the work in accordance with the rules of the art and safety regulations. The documents accompanying the product are available at www.atlas.com.pl.

The contents of the Technical Data Sheet and the designations and trade names used therein are the property of Atlas Ltd. Their unauthorised use will be sanctioned.

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Detailed information on the seasoning of ATLAS POSTAR 10 screed before subsequent coats are applied.

Type another layer on top of the screed	Seasoning of the substrate before application of the layer in ques- tion*	Preparation of the screed before the layer in question is applied
Alignment/bottom-up by means of ATLAS POSTAR 10	after approx. 24 hours	ATLAS ADHER S
Alignment/bottom-up by means of ATLAS SMS	after approx. 72 hours	- ATLAS NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT ULTRA
ceramic cladding	Moisture content of the screed 4.0 - after approx. 1.5 days for a thickness of 1.0-3.0 cm - after approx. 3 days for a thickness of 3.1-5.0 cm - after approx. 9 days for a thickness of 5.1-10.0 cm	- ATLAS NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT ULTRA
waterproofing	Option 1	
	ATLAS WODER DUO ATLAS WODER SX Moisture content of the screed 4.0 - after approx. 1.5 days for a thickness of 1.0-3.0 cm - after approx. 3 days for a thickness of 3.1-5.0 cm - after approx. 9 days for a thickness of 5.1-10.0 cm	moistening to a dull wet state
	Option 2	
	ATLAS FAST DRYING LIQUID FOIL WODER E ATLAS LIQUID FOIL WODER W Moisture content of the screed 2.0 - after approx. 3 days for a thickness of 1.0-3.0 cm - after approx. 5 days for a thickness of 3.1-5.0 cm - after approx. 16 days for a thickness of 5.1-10.0 cm	- ATLAS NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT ULTRA
parquet PVC lining carpeting panels	Moisture content of the screed 2.0 - after approx. 3 days for a thickness of 1.0-3.0 cm - after approx. 5 days for a thickness of 3.1-5.0 cm - after approx. 16 days for a thickness of 5.1-10.0 cm	as recommended by the finishing coat man- ufacturer
epoxy coating	Moisture content of the screed 4.0 - after approx. 1.5 days for a thickness of 1.0-3.0 cm - after approx. 3 days for a thickness of 3.1-5.0 cm - after approx. 9 days for a thickness of 5.1-10.0 cm	as recommended by the finishing coat man- ufacturer

* times recommended for normal application conditions:

- temperature approx. 20 °C
- humidity of 55-60%.

Attention. In the case of a screed made with underfloor heating, the floor layers can only be laid after the screed has been warmed up. The rules for warming up the screed of ATLAS POSTAR 10 can be found above in the paragraph " Execution of the floor or screed ".