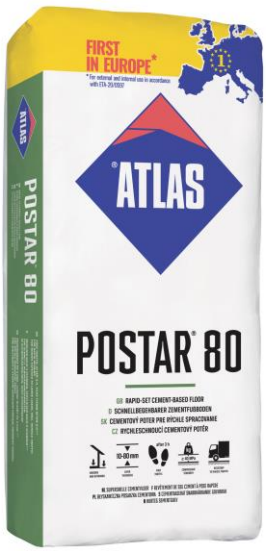

ATLAS POSTAR 80

rapid-set cement-based floor (10-80 mm)

- fast-drying - fixing tiles after 3 hours
- fast-setting – foot traffic after 3 hours
- under tiles, parquet and epoxy resin flooring
- limited linear shrinkage

Properties

ATLAS POSTAR 80 is produced as a dry mixture of Portland cement, quartz fillers and modifiers.

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

High compressive strength: ≥ 40.0 N/mm² - recommended for all types of surfaces with medium to heavy loads.

Flexural strength: ≥ 7.0 N/mm².

Abrasion resistance: ≤ 9.0 cm³ /50 cm² .

Low linear shrinkage - minimal linear changes in the screed during drying (on the order of 0.6 mm/mb) reduce the possibility of cracking.

Purpose

Forms a screed or floor with a thickness of 10-80 mm - the layer thickness depends on the structural layout adopted (table below).

Recommended for quick renovations - it is fast setting - it reaches the operational parameters of use in a short time, which makes it possible to shorten technological gaps and accelerates the application of subsequent layers: foot traffic and fixing the tiles already after 3 hours.

It can be used as a screed for flooring layers such as parquet, coatings and epoxy floors - 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 as a result of changes in its moisture content.

Creates a floor with high abrasion resistance - recommended for residential buildings, warehouses, industrial facilities, driveways, terraces, etc.

Suitable for use as a screed with underfloor heating - no elasticising additives required, good thermal conductivity.

Allows for slopes and repairs to concrete surfaces, stairs, slabs, floors.

Types of finishing layers - ceramic and stone tiles, carpet and PVC, panels, parquet, floor panels and epoxy coatings.
Types of possible arrangements: **- bonded to substrate - thickness 10-80 mm -** good quality substrate: concrete, cement screed(with or without underfloor heating) **- on a separating layer - 35-80 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 film. **- Floating - 40-80 mm thick -** laid on thermal or sound insulation made of: polystyrene boards of suitable hardness, underfloor, hardened mineral wool panels, etc. **heating** - the thickness over the heating installation should be **at least 35 mm.**

Technical data

Bulk density (dry mix)	approx. 1.75 kg/dm³
Mixing ratio water/dry mix	0.06÷0.08 l / 1 kg 1.5÷2.0 l / 25 kg
Min./max. screed or floor thickness	10 mm / 80 mm
Maximum aggregate size	4.0 mm
Linear changes	≤ 0,06%
Mortar preparation temperature, substrate and ambient temperature during work	from +5 °C to +30 °C
Pot life	minimum 30 minutes*
Foot traffic	after approx. 3 hours*

* times recommended for normal application conditions:
- temperature approx. 20 °C
- humidity of 55-60%.

Technical requirements

ATLAS POSTAR 80 (2020)
Declaration of Performance E99/CPR
EAD 190019-00-0502: December 2019
European Technical Assessment ETA-20/0597 dated 03/08/2020

Intended use: Cement-based screed for internal and external use.

Screed may be installed with underfloor heating system.

Screed may be used as a final layer subject to abrasion (floor) or covered with a final layer (e.g. ceramic or stone tiles, epoxy floor, carpet, PVC, parquet, floor panels)

Reaction to fire	$A1_{fl}$
Compressive strength - class	C40 (≥ 40 MPa)
Flexural strength - class	F7 (≥ 7 MPa)
Abrasion resistance	A9 (≤ 9 cm³ / 50 cm)²
Flexural and compressive strength after freeze-thaw cycles, MPa: - compressive strength - flexural strength	 ≥ 40 ≥ 7

Screed or floor preparation

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 screeds or floors - more than 28 days old,
- concrete - more than 3 months old.

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, oils, grease, bituminous substances, paints, weak and detached fragments of old screeds.
Immediately prior to the application of the primer, 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 can be applied with a brush. It should be vigorously rubbed into the previously moistened substrate. When the contact layer dries before the main primer layer is applied, a second application is required (wet-on-wet method).
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.
Floating screed or 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 with 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 5 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.

Expansion joints

Separate floor or screed from walls and other elements within the application area with ATLAS EXPANSION JOINT PROFILES. The size of application area should not exceed:
- 36 m² with sides length up to 6 m indoors,
- 5 m² with sides length up to 3 m outdoors.

The expansions joints should also be executed at room thresholds and around load-bearing posts. The existing structural expansion joints should be transferred onto the floor or screed layer.

Mortar preparation

Pour the material from the bag into the container with water (see Technical Data) and mix until homogeneous. Carry out this operation using a slow speed mixer with a mortar mixer or a flow mixer. The mix is suitable for use immediately after mixing and retains its properties for approximately 30 minutes.

Screed or floor installation

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 set in such a way that the thickness of the floor or screed corresponds to the assumed size and in no place is 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. 30 minutes. After approx. 3 hours, the surfaces should be trowelled and smoothed.

Drying and care of the screed or floor

Protect the freshly poured screed or floor from drying too quickly, direct sunlight, low humidity or draughts. In order to ensure favourable setting conditions for the mortar, the freshly poured surface should be sprinkled with water or covered with plastic sheeting as required. Proper care leads to an increase in the strength of the product, but also prolongs the drying process. The drying time of the screed or floor depends on the thickness of the layer and the heat and humidity conditions in the surroundings. Use of the screed or floor (walking in) can be started after approx. 3 hrs, and the target load after approx. 7 days.

Preparation of successive layers

For detailed information on the seasoning of ATLAS POSTAR 80 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 production date on the packaging.

Important additional information

Using the wrong amount of water for the preparation of the mix leads to a reduction in the strength parameters of the screed. When carrying out the work, the mixing degree and consistency of the compound.

Low temperatures and high humidity in the room can prolong the drying time of the screed.

Before installing PVC flooring, a smoothing layer of ATLAS SMS 15 or ATLAS SMS 30 should be made on the ATLAS POSTAR 80 screed.

Tools should be cleaned with clean water, immediately after use.

The information contained in this Technical Data Sheet is a basic guideline for the use of the product and does not release you from 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.

Update date: 2022-10-28

Detailed information on the seasoning of ATLAS POSTAR 80 screed before subsequent coats are applied.

Type another layer on top of the screed	Seasoning of the screed before application of the layer in question*	Preparation of the screed before the layer in question is applied
Levelling/filling with ATLAS POSTAR 80	after approx. 3 hours	ATLAS ADHER S
Levelling/filling with ATLAS SMS	after approx. 12 hours	- ATLAS GRUNT NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT COLOUR - ATLAS UNI-GRUNT ULTRA
ceramic cladding	**Moisture content of the screed 4.0 % CM** - after approx. 3 hours for a thickness of 1.0-3.0 cm - after approx. 6 hours for a thickness of 3.1-5.0 cm - after approx. 18 hours for thicknesses between 5.1 cm and 8.0 cm	- ATLAS GRUNT NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT COLOUR - ATLAS UNI-GRUNT ULTRA
waterproofing	**Option 1**	
	ATLAS WODER DUO **ATLAS WODER DUO EXPRESS** **ATLAS WODER SX** **Moisture content of the screed 4.0 % CM** - after approx. 3 hours for a thickness of 1.0-3.0 cm - after approx. 6 hours for a thickness of 3.1-5.0 cm - after approx. 18 hours for thicknesses between 5.1 cm and 8.0 cm	moistening to a dull wet state
	Option 2	
	ATLAS WODER E **ATLAS WODER W** **ATLAS FAST-DRYING LIQUID FOIL** **Moisture content of the screed 2.0 % CM** - after approx. 0.5 days for a thickness of 1.0-3.0 cm - after approx. 1 day for a thickness of 3.1-5.0 cm - after approx. 3 days for a thickness of 5.1-8.0 cm	- ATLAS GRUNT NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT COLOUR - ATLAS UNI-GRUNT ULTRA
parquet PVC lining carpeting panels	**Moisture content of the screed 2.0 % CM** - after approx. 0.5 days for a thickness of 1.0-3.0 cm - after approx. 1 day for a thickness of 3.1-5.0 cm - after approx. 3 days for a thickness of 5.1-8.0 cm	as recommended by the finishing coat manufacturer
epoxy coating	**Moisture content of the screed 4.0 % CM** - after approx. 3 hours for a thickness of 1.0-3.0 cm - after approx. 6 hours for a thickness of 3.1-5.0 cm - after approx. 18 hours for thicknesses between 5.1 cm and 8.0 cm	as recommended by the finishing coat manufacturer

* times recommended for normal application conditions:
- temperature approx. 20 °C
- humidity of 55-60%.

Attention. In the case of a subfloor made with underfloor heating, the floor layers can only be laid after the subfloor has been warmed up. The rules for the warming up of ATLAS POSTAR 80 screed can be found above in the paragraph "Preparatory work".