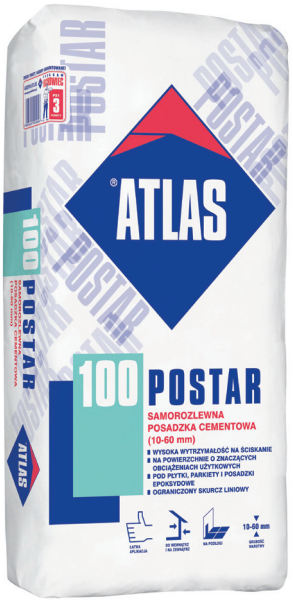

ATLAS POSTAR 100 (10-80 mm)
self-spreading cement floor

- very high compressive strength ≥ 50.0 N/mm²
- in warehouses, production halls, on driveways
- limited linear shrinkage
- self-spreading – easy in use
- for manual and machine application

Use

Levels surfaces within 10 - 80 mm thickness range - layer thickness depends on the expected structural arrangement (see table below). For leveling local irregularities as well as large scale flooring with slope.
Forms floor of high strength – recommended for loading ramps, driveways, underground car parks, terraces, balconies, warehouses, etc.
Can form top flooring layer as well as screed for other finishing materials.
Can be installed as screed with heating system – does not require elastifying admixtures, conducts heat well.
Can form screed for top flooring layers, e.g. parquet, epoxy floors and coats - characterised by high cohesion and resistance to setting forces, which occur within the joint with flooring layer, e.g. during expansion and contraction of wood resulting from the changes of humidity.

Types of finishing layers – ceramic and stone tiles, epoxy screeds and coats, PVC and carpet flooring, parquet, floor panels.
Types of possible arrangements:
- **bonded floor - thickness 10 - 80 mm** – on good quality substrates, e.g. concrete, cement screed (with or without floor heating)
- **on separation layer - thickness 35 - 80 mm** – on poor quality substrates, which do not provide appropriate bonding - dusty, cracked, oiled, dirty, very absorbable; separation layer can be made of, e.g. PE foil 0.2 mm thick.
- **floating - thickness 40 - 80 mm** – applied on thermal or acoustic insulation layer made of: polystyrene boards of appropriate hardness, hardened mineral wool panels, etc.
- **heating** – the layer above the heating layer should be **min. 35 mm thick.**

Properties

Perfect spreadability - enables execution of horizontal surfaces even in large rooms, with no use of battens and mass raking up with a darby.
Compressive strength: ≥ 50.0 N/mm².
Flexural strength: ≥ 7.0 N/mm².
Low linear shrinkage - minimum changes in linear dimensions during screed drying (approx. 0.6 mm/rm) limit the risk of cracking.
Suitable for machine application – easy and quick flooring even in large rooms.

Technical data

ATLAS POSTAR 100 manufactured as a dry mix of Portland cement, quartz fillers and modifiers.

Bulk density (of dry mix)	approx. 1600 kg/dm³
Mixing ratio (water/dry mix)	0.13 ÷ 0.15 l/1 kg 3.25 ÷ 3.75 l/25 kg
Min./max. screed or floor thickness	10 mm / 80 mm
Maximum aggregate size	3.0 mm
Linear changes	< 0.06%
Mortar preparation temperature, substrate and ambient temperature during work	from +5°C to +30°°C
Pot life	min. 30 minutes*
Foot traffic	after approx. 24 hours*
Fixing the cladding	after approx. 3 weeks*

*The time shown in the table is recommended for the application in the temperature 20°C and humidity 55-60% (approx.).

Technical requirements

ATLAS POSTAR 100 conforms to PN-EN 13813 standard. EC Declaration of Performance No. 084/CPR.

CE	PN-EN 13813:2003 (EN 13813:2012)
Cement based screed CT-C50-F7-A15	for indoor use
Reaction to fire – class	$A1_{fl}$
Corrosive substance release	CT
Compressive strength – class	C50 (≥ 50.0 N/mm²)
Flexural strength - class	F7 (≥ 7.0 N/mm²)
Böhme abrasion resistance - class	A15
Water permeability, vapour permeability, acoustic insulation, noise damping, heat resistance, chemical resistance	NPD
Release/content of hazardous substances	See: Safety Data Sheet

ATLAS POSTAR 100 has been given the ITB Technical Approval No. AT-15-6971/2016. Domestic Declaration of Conformity No. 084 of 02.01.2017. The product has been given the Radiation Hygiene Certificate.

Screed or floor installation

Substrate preparation

The substrate should be stable, sound and air dry, the method of its preparation depends on actual floor structural arrangement. General requirements for substrates:

- cement floors and screeds – min. 28 days old,
- concrete – min. 3 months old.

Bonded screed or floor. . The substrate must be free from layers which would impair bonding, particularly dust, lime, oils, grease, bitumen substances, paints, weak and loosening pieces of old substrates. Any substrate surface cracks should be widened, dusted and primed. Fill them with fast setting repair mortars ATLAS TEN-10 or ATLAS ZW 330. Prime once or twice with ATLAS UNI-GRUNT PLUS emulsion. Leave to dry (approx. 4 hours).

Screed or floor on separation layer. The separation layer, e.g. PE foil, must be spread tightly, without wrinkles and folded onto the walls (upon the expansion joint strips) at least to the height of the screed.

Floating floor or screed. The insulation boards must be placed tightly with offset edges upon even surface. Place the separation layer upon the boards and fold it onto the wall.

Screed with heating system. The heating installation must be checked and fixed, fill up the pipes of water heating system with water. The screed should be installed with one layer (when the heating installation is firmly fixed). Follow guidelines listed in the project documentation and recommendations of the heating system manufacturer.

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 m^2 with sides length up to 6 m indoors,
- 5 m^2 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

Manual application. Pour the mortar from the bag into a container with the suitable amount of water (see Technical Data for ratio) and mix until homogenous. Mix mechanically with a low speed mixer with a drill for gypsum, a flow mixer or a cement mixer. The mortar is ready to use directly after mixing and keeps properties within approx. 30 minutes.

Machine application. Pour the mortar into the basket of the mixing-and-pumping unit, set the mix water level providing appropriate consistency of the mass leaving the hose.

Mass application

The mass is poured mechanically with mixing-and-pumping units with continuous water flow and worm pump. It can also be poured manually. Before application, the future screed or floor thickness is to be marked within the application area, which can be done with, e.g. a level and portable height benchmarks. Pour the prepared mass evenly and continuously up to the desired height, avoid gaps. Just after filling an individual area, the mass has to be de-aerated with, e.g. de--aeration roller or a brush with long and hard hair. Move the brush shaking along and across the application area. The application area should be filled, leveled and de-aerated within approx. 30 minutes.

Screed drying and maintenance

During application and directly after, protect the installed layer against excessive drying, direct sunlight, low air humidity or draughts. In order to ensure favourable conditions for mortar setting, depending on needs, sprinkle the freshly applied surface with water or cover it with foil. The time of drying depends on the layer thickness and ambient thermal and humidity conditions. The use of screed or floor (foot traffic) can start after approx. 24 hours and full load after approx. 14 days.

Finishing works

The time of finishing works execution depends on the type of top finish and should start when screed parameters stabilize (after approx. 3-4 weeks), and in case of PVC flooring or parquet – after full drying. Prime the surface with ATLAS UNI-GRUNT PLUS before fixing the cladding.

Consumption

The average consumption is 20 kg of mortar for 1 m^2 for each 10 mm of layer thickness.

Important additional information

- Inappropriate amount of mix water results in deterioration of strength parameters of floor or screed. Monitor the mass consistency and quality of mixing during screed or floor application.
- Until the floor heating is fully turned on, temperature should be increased every 24 hours by maximum 2°C till the maximum operation temperature is achieved. The temperature should then be lowered at the same rate until the heating is turned off.
- Before the application of PCV flooring apply a smoothing layer made of ATLAS SMS 15 or ATLAS SMS 30.
- Tools must be cleaned with clean water directly after use.
- Contains cement. May cause respiratory irritation. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Keep out of reach of children. Avoid breathing dust. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Follow the instructions in the Safety Data Sheet.
- The mortar must be transported and stored in tightly sealed bags, in dry conditions (most preferably on pallets). Protect against humidity. Shelf life in conditions as specified is 12 months from the production date shown on the packaging. Content of soluble chromium (VI) in ready-to-use mix - ≤ 0.0002%.

Packaging

Paper bags: 25 kg
Pallet: 1,050 kg in 25 kg bags

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 building principles and OHS regulations.
At the time of publication of this product data sheet all previous ones become void.
An up-to-date technical documentation available at www.atlas.com.pl/en..
Date of update: 2018-10-16