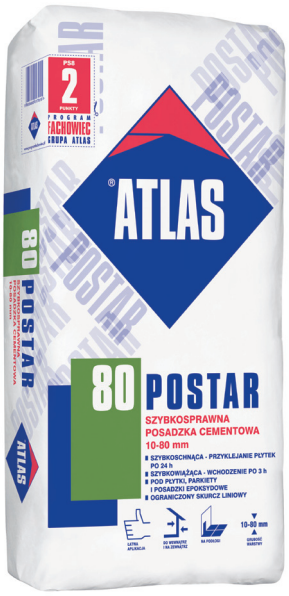


# ATLAS POSTAR 80 (10-80 mm)
## fast setting cement floor

- fast drying – further works just after 24 hours
- fast setting - foot traffic after 3 hours
- limited linear shrinkage
- high compressive strength ≥ 40.0 N/mm²
- excellent cohesion, under parquets and epoxy floors


## Use

**Forms screed or floor 10 - 80 mm thick** - layer thickness depends on the expected structural arrangement (see table below).
**Recommended for quick repairs** – fast setting - rapidly reaches the operational parameters, therefore the technological breaks are shorter and application of subsequent layers quicker: foot traffic just after 3 hours; fixing the tiles - just after 24 hours.
**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.
**Forms floor characterised by high abrasion resistance** – recommended for residential housing, warehouses, industrial premises, on driveways, terraces, etc.
**Can be installed as screed with heating system** – does not require elastifying admixtures, conducts heat well.
**Enables forming a slope and repairs of concrete surfaces, stairs, slabs, floors.**

**Types of finishing layers** – ceramic and stone tiles, epoxy screeds and coats, PVC and carpet flooring, parquet, floor panels.
Types of possible arrangements:
- **bonded - thickness 10 - 60 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

**Fast-drying** - the residual moisture content below 2.6% for screed approx. 4 cm thick after 24 hours since application (in standard conditions).
**Fast setting** – rapid strength build up within the first day of setting.
**Thick plasticity** - mortar consistency makes it easy to spread, float and to form even surface.
**Compressive strength: ≥ 40.0 N/mm²** - recommended for any surfaces exposed to medium and high load.
**Flexural strength: ≥ 7.0 N/mm².**
**Abrasion resistance: ≤9.5 cm³/50 cm²** - acc. to Böhme (Technical Approval AT-15-8462/2010).
**Low linear shrinkage** - minimum changes in linear dimensions during screed drying (approx. 0.6 mm/rm) limit the risk of cracking.

## Technical data

ATLAS POSTAR 80 manufactured as a dry mix of Portland cement, quartz fillers and modifiers.

| | |
|---|---|
| Bulk density (of dry mix) | approx. 1.75 kg/dm³ |
| Mass bulk density (after mixing) | approx. 2.40 kg/dm³ |
| Dry density (after setting) | approx. 2.20 kg/dm³ |
| Mixing ratio (water/dry mix) | approx. 0.08 l/1 kg approx. 2.00 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 | min. 30 minutes* |
| Foot traffic | after approx. 3 hours* |
| Fixing the cladding | after approx. 24 hours* |
| Fixing the parquet, PCV or linoleum flooring | after approx. 24 hours* |

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

**Changes in residual moisture content within time**. The results of testing in standard conditions in temp. 20°C and humidity 55 - 60%. Perform humidity tests (with CM method) prior to each application of the flooring materials.

| Time / layer thickness | 1.5 cm | 4 cm | 7 cm |
|---|---|---|---|
| 1 day | 2.1 % | 2.6 % | 3.9 % |
| 3 days | 1.8 % | 2.2 % | 2.9 % |
| 5 days | 1.6 % | 1.8 % | 1.9 % |

## Technical requirements

ATLAS POSTAR 80 conforms to PN-EN 13813 standard. EC Declaration of Performance No. 099/CPR.

| CE | PN-EN 13813:2003 (EN 13813:2002) |
|---|---|
| Cement based screed CT-C40-F7-A12 | for indoor use |
| Reaction to fire – class | $A1_{fl}$ |
| Corrosive substance release | CT |
| Compressive strength – class | C40 (≥ 40.0 N/mm$^2$) |
| Flexural strength - class | F7 (≥ 7.0 N/mm$^2$) |
| Abrasion resistance - class | A12 |
| Water permeability, vapour permeability, acoustic insulation, noise damping, heat resistance, chemical resistance | NPD |
| Release/content of hazardous substances | See: Safety Data Sheet |

ATLAS POSTAR 80 has been given the ITB Technical Approval No. AT-15- 8462/2010. Domestic Declaration of Conformity No. 099 of 01.10.2010. 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 and dusted. Just before the application of the main mortar layer, the substrate should be moistened with water and contact coat applied.

The contact coat can be prepared with one of the following methods:

- with ATLAS POSTAR 80 modified with ATLAS ELASTIC EMULSION in ratio: 1 kg of dry mix + 0.12 l of water + 0.06 l of ATLAS ELASTIC EMULSION,
- with ATLAS ADHER mortar.

The contact coat has liquid consistency and can be applied with a brush. Rub it well into previously moistened substrate. When the contact coat dries, apply another one before the application of the main screed layer ("wet on wet" method).

**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**

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 mortars, a flow mixer or a cement mixer. The mortar is ready to use directly after mixing and keeps properties within approx. 30 minutes.

**Mass application**

Carry the works out according to flooring technology. Use wooden or metal battens to keep screed surface even. Place the battens so the screed or floor layer thickness corresponds to the expected one and is in no place lower than the minimum thickness assumed for a chosen structural arrangement (bonded, on separation layer, floating). In order to compact the mass and spread it more precisely, one can vibrate it with a darby or compact with a float. Collect the excessive mortar along the battens with zigzag moves. The application area should be filled and leveled within approx. 30 minutes. The surface can be floated and smoothed after approx. 3 hours.

**Screed drying and maintenance**

During application and directly after, protect the installed screed or floor 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. Proper maintenance leads to increase of strength of product but also extends the time of drying. 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. 3 hours and full load after approx. 7 days.

**Finishing works**

The time of finishing works execution depends on the setting conditions, humidity, type and permeability of the top finish materials and can commence after approx. 24 hours in case of tiling. PVC flooring can be installed when the screed dries fully. Parquet can be installed after approx. 7 days.

If in doubt on the actual residual moisture content, carry out appropriate measuring. The residual moisture content should not exceed:

3% - for tiling,

2% - for the application of self-levelling masses or vapour impermeable flooring, e.g. PVC, wooden flooring, epoxy floors.

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 of floor or screed. Monitor the mass consistency and quality of mixing during screed or floor application.
- Higher air humidity or low temperature extend the setting time of screed.
- 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.*

*Date of update: 2015-04-24*