



## ATLAS POSTAR 80

fast setting cement floor (10-80 mm)

- fast drying - fixing the cladding after 3 hours
- fast setting - foot traffic after 3 hours
- excellent cohesion, under tiles, parquets and epoxy floors
- limited linear shrinkage



### Properties

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

**Thick plasticity** - mortar consistency makes it easy to spread, float and to form even surface.

**Compressive strength:**  $\geq 40.0 \text{ N/mm}^2$  - recommended for any surfaces exposed to medium and high load.

**Flexural strength:**  $\geq 7.0 \text{ N/mm}^2$ .

**Abrasion resistance:**  $\leq 9.0 \text{ cm}^3/50 \text{ cm}^2$ .

**Low linear shrinkage** - minimum changes in linear dimensions during screed drying (approx. 0.6 mm/rm) limit the risk of cracking.

### 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 and fixing the tiles just after 3 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 - 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**.



## Technical data

|   |   |
|---|---|
| Bulk density (of dry mix)   | ok. 1,75 kg/dm <sup>3</sup>             |
| Mixing ratio (water/dry mix)  | 0,06±0,08 l / 1 kg<br>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  | Min. 30 minutes*                        |
| Foot traffic  | after approx. 3 hours*                  |

\*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 80 (2020)<br>Declaration of Performance E99/CPR<br>EAD 190019-00-0502: December 2019<br>European Technical Assessment ETA-20/0597 of August 03, 2020  |  |
|--|--|
| <b>Intended use:</b> Cement-based screed for internal and external use.<br>Screed may be installed with underfloor heating system.<br><br>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 <sub>fl</sub>                               |
| Compressive strength - class   | C40 (≥ 40 MPa)                                 |
| Flexural strength - class  | F7 (≥ 7 MPa)                                   |
| Abrasion resistance  | A9 (≤ 9 cm <sup>3</sup> / 50 cm <sup>2</sup> ) |
| Flexural and compressive strength after freeze-thaw cycles, MPa:   |  |
| - Compressive strength   | ≥ 40   |
| - Flexural strength  | ≥ 7  |

## Screed or floor preparation

### 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 ADHER mortar,
- with ATLAS POSTAR 80 modified with ATLAS ELASTIC EMULSION in ratio: 10 kg of dry mix ATLAS POSTAR 80 + 0.5 l of water + 1 kg of ATLAS ELASTIC EMULSION.

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.

The first start-up of the underfloor heating (the so-called heating of the underlay) should be done as follows.

Until the floor heating is fully turned on, temperature should be increased every 24 hours by maximum 2°C until the maximum operation temperature is achieved. The temperature should then be lowered at the same rate until the heating is turned off.

The heating process can be started after:

- 35 days from making the screed, when the temperature in the room is between 5-15 °C
- 21 days after the application, when the temperature in the room is above 15 °C.

### 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<sup>2</sup> with sides length up to 6 m indoors,
- 5 m<sup>2</sup> with sides length up to 3 m outdoors.

The expansion 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.

## Screed or floor installation

### 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.

### **Preparation of the next layers.**

Detailed information on seasoning ATLAS POSTAR 80 before applying the next layers can be found in the table at the end of the Technical Data Sheet.

### **Consumption**

The average consumption is 20 kg of mortar for 1 m<sup>2</sup> for each 10 mm of layer thickness.

### **Packaging**

Paper bags 25 kg.

### **Safety information**

Safety information is provided on the product packaging and in the Safety Data Sheet available at [www.atlas.com.pl](http://www.atlas.com.pl).

### **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](http://www.atlas.com.pl).

Shelf life is 12 months from the production date shown on the packaging.

### **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.

Higher air humidity or low temperature extend the setting time of screed.

Before the application of PCV flooring on ATLAS POSTAR 80 apply a smoothing layer made of ATLAS SMS 15 or ATLAS SMS 30.

Tools must be cleaned with clean water directly after use.

The information included in the Product Data Sheet constitutes basic guidelines concerning the use of the product and does not release from the obligation to conduct work according to the best construction practices and health and safety at work regulations. On the date of issue of this Product Data Sheet, all previous Product Data Sheets become invalid. The accompanying documents for the product are available at [www.atlas.com.pl](http://www.atlas.com.pl).

The content of the Product Data Sheet as well as the symbols and trade names used in it are the property of Atlas sp. z o. o. Their unauthorized use will be sanctioned.

**Updated: 2021-04-08**



Detailed information on the curing process of the screed ATLAS POSTAR 80 before applying subsequent coats.

| Type of the next covering on the screed              | Curing of the screed before laying the respective covering *  | Priming of the screed before laying the respective covering   |
|--|---|---|
| Levelling/filling with ATLAS POSTAR 80               | after approx. 3 hours   | ATLAS ADHER S   |
| Levelling/filling with za pomocą ATLAS SMS           | after approx. 12 godzinach hours  | ATLAS UNI GRUNT lub ATLAS UNI-GRUNT ULTRA diluted with water 1:3  |
| ceramic tiles  | <b>Moisture content of the screed 4,0 % CM</b><br>- after approx. hours for thicknesses between 1,0-3,0 cm<br>- after approx. 6 hours for thicknesses between 3,1-5,0 cm<br>- after approx. 18 hours for thicknesses between 5,1-8,0 cm   | ATLAS UNI-GRUNT, ATLAS UNI-GRUNT ULTRA diluted with water 1:3 lub ATLAS UNI-GRUNT PLUS – when the substrate has excessive or non-uniform absorbency |
| Waterproofing  | <b>Variant 1</b>  |   |
|  | <b>ATLAS WODER DUO</b><br><b>ATLAS WODER DUO EXPRESS</b><br><b>Moisture content of the screed 4,0 % CM</b><br>- after approx. 3 hours for thicknesses between 1,0-3,0 cm<br>- after approx. 6 hours for thicknesses between 3,1-5,0 cm<br>- after approx. 18 hours for thicknesses between 5,1-8,0 cm | wet until matt damp   |
|  | <b>Variant 2</b>  |   |
|  | <b>ATLAS WODER E</b><br><b>ATLAS WODER W</b><br><b>Moisture content of the screed 2,0 % CM</b><br>- after approx. 0,5 day for thicknesses between 1,0-3,0 cm<br>- after approx. 1 day for thicknesses between 3,1-5,0 cm<br>- after approx. 3 days for thicknesses between 5,1-8,0 cm                 | ATLAS UNI-GRUNT, ATLAS UNI-GRUNT ULTRA lub ATLAS UNI-GRUNT PLUS – when the substrate has excessive or non-uniform absorbency                        |
| parquet<br>PVC flooring<br>carpet flooring<br>panels | <b>Moisture content of the screed 2,0 % CM</b><br>- after approx.. 0,5 day for thicknesses between 1,0-3,0 cm<br>- after approx.. 1 day for thicknesses between 3,1-5,0 cm<br>- after approx.. 3 days for thicknesses between 5,1-8,0 cm  | according to the instructions of the flooring manufacturer  |
| epoxy flooring                                       | <b>Moisture content of the screed 4,0 % CM</b><br>- after approx.. 3 hours for thicknesses between 1,0-3,0 cm<br>- after approx.. 6 hours for thicknesses between 3,1-5,0 cm<br>- after approx.. 18 hours for thicknesses between 5,1-8,0 cm  | according to the instructions of the flooring manufacturer  |

\* the times apply to normal application conditions:

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

