



ATLAS SAM 200

self-levelling screed (25-60 mm)

- Perfectly smooth surface that requires no sanding
- under tiles, carpets, panels
- without expansion joints up to 50 m²
- conducts heat well - ideal for underfloor heating
- entering the sleeper after 16 hours



Properties

ATLAS SAM 200 is produced in the form of a dry mix, made from high-grade anhydrite.

Flowability - allows a horizontal and smooth surface to be achieved even in large rooms, without the need for guides or the need to pull the compound down with patches.

Compressive strength: $\geq 16.0 \text{ N/mm}^2$.

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

Reduced shrinkage - the possibility of shrinkage cracks during drying is reduced to a minimum, allowing working areas of up to 50 m² without intermediate expansion joints.

It is suitable for manual or machine application - it can be applied easily and quickly, either manually or using machines equipped with auger pumps.

Purpose

It evens out substrates in the range of 25-60 mm - both when the substrate has only localised irregularities and when the entire substrate is made with a slight slope.

Raises the floor level throughout the room - when, for example, it is necessary to level two adjacent rooms.

It is the ideal material for sinking underfloor heating, whether electric or water - it has very good thermal conductivity, better than cement-based products; it thoroughly envelops the heating pipes.

Recommended for levelling the surface of existing heating underlays.

It can only be used indoors in dry areas - as a primer based on high-quality anhydrite it can only be used indoors in dry areas: living rooms, hallways, lobbies, living rooms, offices, corridors, waiting rooms, etc.

Types of finishing layers - tiles, PVC, carpet, panels.

Types of arrangements that can be created:

- **bonded to the substrate - thickness 25-60 mm** - substrate is good quality concrete, cement or anhydrite subfloor (with or without underfloor heating)

- **on a separating layer - 30-60 mm thick** - when the substrate is of poor quality and does not ensure proper adhesion - dusty, cracked, oily, dirty, highly absorbent; the separating layer can be e.g. 0.2 mm thick PE film

- **floating - 35-60 mm thick** - laid on thermal or sound insulation made of: polystyrene boards of suitable hardness, from underfloor hardened mineral wool slabs, etc.

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

Technical data

Bulk density (dry mix)	approx. 1.4 kg/dm ³
Mixing ratio water/dry mix	approx. 0.17÷0.19 l / 1 kg approx. 4.25÷4.75 l / 25 kg
Min./max. thickness of screed	25 mm / 60 mm
Maximum diameter of aggregate	0.8 mm
Linear changes	< 0,03%
Temperature of the compound preparation and of the substrate and surroundings during the work	from +5 °C to +25 °C
Consumption time (from mixing to completion of work)	approx. 45 minutes
Stepping on the pad	after 16 hours
Full setting and drying time	3-4 weeks

times shown in the table recommended for normal application conditions:- temperature of approx. 20 °C and humidity of 55-60%.

Technical requirements

Product in accordance with EN 13813:2003.

ATLAS SAM 200 (2019) Declaration of Performance No. 010/1/CPR EN 13813:2002	
Intended use: CA-C16-F5 Self-levelling floor screed on a calcium sulphate basis for internal use in buildings	
Reaction to fire class (in case of exposure)	A1 _{fl}
Release of corrosive substances	CA
pH value	≥7
Mechanical strength: - compressive strength - bending strength	C16 F5

Making the underlay

Substrate preparation

The substrate should be stable, clean and sufficiently strong, and due to the danger of the primer leaching out, it should be of a bathtub nature. Requirements for substrates:

- cementitious sleepers - more than 28 days old,
- concrete - age over 3 months,
- anhydrite primers - mechanically sanded and vacuumed.

All steel components in contact with the primer should be protected against corrosion.

Substrate bonded to the substrate. Unevenness of the substrate (depressions and cavities) should be leveled with ATLAS ZW 330 mortar (cement substrates only). Dry, repaired, absorbent substrates should be vacuumed and primed with one of the emulsions:

- ATLAS GRUNT NKP (ready to use - without dilution).
- ATLAS UNI-GRUNT,
- ATLAS UNI-GRUNT COLOUR,
- ATLAS UNI PRIMER ULTRA.

Non-absorbent substrate should be covered with ATLAS ULTRAGRUNT.

Screed on the separating 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. The insulation boards should be laid tightly, on a level base, with the edges staggered. A separation layer should be made over the boards and turned up against the walls.

Screed in underfloor heating system. The heating installation should be checked and fixed. The screed is recommended to be made in a single layer (with the stable system fixing of the heating installation ensured). During the work, the specifications of the technical design and the and the recommendations of the heating system manufacturer.

Expansion joints

Separate the subfloor from the walls and other elements with an expansion joint profile. Intermediate expansion joints are not necessary on surfaces up to 50 m² and those whose diagonal does not exceed 10 m. Any expansion joints of previous layers must be transferred to the screed. Contraction joints must be made around columns and at room thresholds.

Preparation of the mass

Machine mixing - pour the dry mixture into the hopper in the mixing and pumping unit and set a constant level of dosed water to achieve the correct consistency of the mass flowing out of the hose.

Manual application - pour the material from the bag into a container with a measured quantity of water (proportions given in the Technical Data Sheet) and mix until a homogeneous mass is obtained, preferably using a slow speed mixer with a gypsum mixer. The compound is suitable for use immediately after mixing and retains its properties for approximately 45 minutes. The proper consistency should be checked by pouring the mortar from a 1 litre container onto an even, non-absorbent surface (e.g. foil). It should form a "cake" with a diameter of approx. 45÷50 cm.

Laying the mass

Before starting the work, the future thickness of the subfloor (on the walls and in the pouring field) must be determined, e.g. using a spirit level and portable height gauges. Machine pouring - by means of a mixing and pumping unit with continuous flow water dosing, manual pouring - only in fields up to 15 m in size² (due to slower working speed).

Before starting the work, the future thickness of the subfloor (on the walls and in the execution field) must be determined indoors. This can be done, for example, by using a spirit level and portable height markers. The prepared mixture should be poured evenly up to the determined heights, avoiding gaps. Immediately after pouring each field, the material should be deaerated using, for example, a deaerating roller or a brush with long, hard bristles. Guide the brush in a shaking motion along and across the poured area. These steps facilitate spreading and levelling the mass. The established laying area of the mass should be filled, levelled and de-aerated in up to 45 minutes.

Underfloor heating - tips (aftercare)

Heating of the screed can be started 7 days after the screed has been made. The heating start-up must be carried out according to the following rules:

- for the first two days the maximum water temperature in the system should be no more than 5 °C above room temperature and no more than 20 °C in the room and no more than 20 °C,.
- In intervals of 2 days, the water temperature can be increased by 5 °C until the maximum water temperature is reached, but not more than 50 °C,
- maintain the maximum water temperature for no more than 4 days then proceed to cool the screed to a heating medium temperature of 20 °C, reducing the temperature by 5 °C at intervals of 2 days.

The floor can be laid 2 days after the subfloor has cooled down.

Care

During the first two days of the subfloor curing, avoid direct sunlight and draughts and ensure that the rooms are properly ventilated and aired. The drying time of the anhydrite screed depends on the thickness of the layer and the heat and humidity conditions in the room.

For details of how to season the ATLAS SAM 200 primer before applying subsequent coats, please refer to the last page of the Technical Data Sheet.

Consumption

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

Packaging

25 kg plastic 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.

Shelf life (product shelf life) is 9 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 primer and separation of the components. When carrying out the work, the degree of mixing and the consistency of the mix must be controlled.

Before the underfloor heating is fully operational, increase the temperature by a maximum of 2 °C every 24 h until the operating value is reached. Then reduce it according to the same principle until the heating is switched off.

Gradual heating of the subfloor under the completed layer (increasing the temperature by max. 3 °C per day) can be started at the earliest after the subfloor has fully set.

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

The information contained in the Technical Data Sheet is a basic guide to the use of the product and does not release the user from the obligation to the obligation to carry out the work in accordance with the rules of the trade and in compliance with health 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.

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 SAM 200 primer before subsequent coats are applied.

Type another layer on top of the primer	Seasoning of the substrate before the layer in question*	Priming the primer before the layer in question was applied***
Alignment/bottom-up using primers of the ATLAS SAM 200 range	- approx. 3 weeks for a thickness of 2.5-4.0 cm - approx. 4 weeks for a thickness of 4.1 to 6.0 cm	Prime: - ATLAS GRUNT NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT COLOUR - ATLAS UNI-GRUNT ULTRA
ceramic cladding (without waterproofing layer)	Moisture content of the screed 1.0 % CM - approx. 7 days for a thickness of 2.5-4.0 cm - approx. 10 days for a thickness of 4.1 to 6.0 cm	Prime: - ATLAS GRUNT NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT COLOUR - ATLAS UNI-GRUNT ULTRA
Waterproofing ** - ATLAS WODER E - ATLAS WODER W - ATLAS QUICK-DRYING LIQUID FILM	Moisture content of the primer 0.5 % CM - approx. 10 days for a thickness of 2.5-4.0 cm - approx. 21 days for a thickness of 4.1 to 6.0 cm	Prime: - ATLAS GRUNT NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT COLOUR - ATLAS UNI-GRUNT ULTRA
PVC lining carpeting panels	Moisture content of the substrate 0.5 % CM - approx. 10 days for a thickness of 2.5-4.0 cm - approx. 21 days for a thickness of 4.1 to 6.0 cm	as recommended by the finishing coat manufacturer

* times recommended for normal application conditions:

- temperature approx. 20 °C

- moisture content of 55-60 %.

** ATLAS SAM 200 primer is not suitable for wet rooms such as bathrooms.

*** refer to the Technical Data Sheet of the product selected for priming.