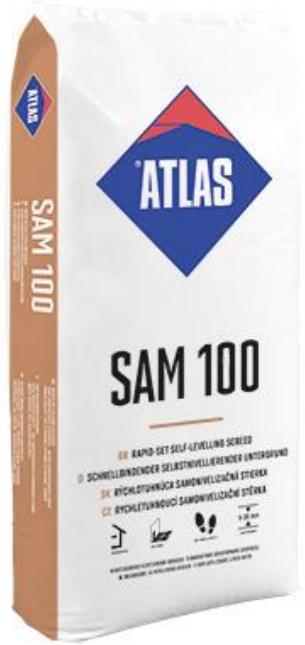

ATLAS SAM 100

rapid-setting, self-levelling screed (5-30 mm)

- anhydrite-gypsum
- high compressive strength ≥ 35.0 N/mm²
- resistant to concentrated loads
- limited shrinkage - without expansion joints up to 50 m²
- under tiles, carpets, parquet and panels

Properties

ATLAS SAM 100 is produced as a dry mix, made from anhydrite flour, α-gypsum and Portland cement.

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: ≥ 35.0 N/mm².

Flexural strength: ≥ 6.0 N/mm².

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 easily and quickly applied both manually and with machines equipped with auger pumps.

Purpose

It evens out substrates in the range of 5-30 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 - for example, when it is necessary to level two adjacent rooms.

For levelling the surface of existing heating subfloors - used when unevenness in the screed makes the final cladding impossible and an additional thin levelling layer needs to be applied.

It can only be used indoors - as a primer based on high-grade anhydrite, it can only be used indoors in dry areas:
- living rooms,
- anterooms,
- halls,
- salons,
- offices,
- corridors,
- waiting rooms, etc.

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

Types of arrangements that can be created:
- bonded to the substrate - 5-30 mm thick - good quality concrete, cement or anhydrite screed (with or without underfloor heating).

Technical data

Bulk density (dry mix)	approx. 1.3 kg/dm³
Mixing ratio water/dry mix	approx. 0.20÷0.22 l / 1 kg approx. 5.00÷5.50 l / 25 kg
Min./max. thickness of screed	5 mm / 30 mm
Maximum diameter of aggregate	0.8 mm
Linear changes	< 0,03%
Resistance to shear forces (after 28 days)	> 0,8 MPa
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)	minimum 30 minutes
Stepping on the pad	after 6 hours
Full setting and drying time	min. 2 weeks

Times given 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 100 (2019) Declaration of Performance No. 069/1/CPR EN 13813:2002	
Intended use: CA-C35-F6 Self-levelling floor screed based on calcium sulphate for interior use	
Reaction to fire class (for exposure)	$A1_{fl}$
Release of corrosive substances pH value	CA ≥ 7
Mechanical strength: - compressive strength - bending strength	 C35 F6

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.

Unevenness of the substrate (hollows and cavities) should be levelled with ATLAS ZW 330 mortar. Dry, repaired substrates should be vacuumed and primed (when the substrate has excessive or non-uniform absorbency) with one of the emulsions:
- ATLAS GRUNT NKP (ready to use - without dilution),
- ATLAS UNI-GRUNT,
- ATLAS UNI-GRUNT ULTRA,

When the substrate has low absorbency or is covered with layers that limit adhesion, it should be covered with a bonding primer, ATLAS ULTRAGRUNT.

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

Expansion joints

Separate the substrate 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 underlay. Contraction dilatations should 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 30 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

The mass is poured by machine - using a mixing and pumping unit with continuous flow water dosing. ATLAS SAM 100 can also be poured manually, but due to the slower pace of work only when dividing the area into technological fields of up to 15 m². Before starting the work, the future thickness of the primer (on the walls and in the execution field) should be determined in the rooms. This can be done, for example, using a spirit level and portable height guides. The prepared mixture is poured evenly up to the determined heights, avoiding gaps. Immediately after pouring each field, the material should be vented using, for example, a vent roller or a brush with long, hard bristles. The brush should be run in a shaking motion along and across the poured area. These steps facilitate the spreading and levelling of the mass. The established laying area of the mass should be filled, levelled and de-aerated within 30 minutes.

Care

During the first two days of the substrate's maturation, direct sunlight and draughts must be avoided and proper ventilation and airing of the rooms must be ensured. The drying time of the anhydrite screed depends on the thickness of the layer and the thermal and humidity conditions in the room. in the room.

For detailed information on the seasoning of ATLAS SAM 100 primer prior to application of subsequent coats, please refer to the last page of the Technical Data Sheet.

Consumption

Average consumption: 1.6 kg/m² per 1 mm of layer thickness. The data refers to application on an even surface. Uneven surfaces increase product consumption.

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.

The shelf life of the product (best before use) is 9 months from the production date on the packaging.

Important additional information

It is prohibited to embed electric heating in the floor screed layer due to excessive temperature increase in the vicinity of the heating cable. Electric heating mats should be installed on the floor screed, e.g. in the tile adhesive layer.

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.

Gradual heating of the subfloor under the completed layer (increasing the temperature by max. 2 °C per day) can be started at the earliest after the subfloor has fully set.

When applying thick-layer screeds to ceilings, the contractor should take into account the impact of additional loads on the structure of the building.

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.

Update date: 2025-05-26

Detailed information on the seasoning of the ATLAS SAM 100 primer before subsequent coats are applied.

Type another layer on top of the primer	Seasoning of the substrate before application of the layer in question*	Priming the primer before the layer in question was applied***
Alignment/bottom-up by means of ATLAS SAM 100	after approx. 2 weeks	- ATLAS GRUNT NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT ULTRA
ceramic cladding (without waterproofing layer)	**Moisture content of the underlay 1.0 % CM** - after approx. 4 days	- ATLAS GRUNT NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT ULTRA
Waterproofing** - ATLAS WODER E - ATLAS LIQUID FOIL WODER W	**Moisture content of the substrate 0.5 % CM** - after approx. 7 days	- ATLAS GRUNT NKP (ready to use) - ATLAS UNI-GRUNT - ATLAS UNI-GRUNT ULTRA
PVC lining carpeting panels	**Moisture content of the substrate 0.5 % CM** - after approx. 7 days	as recommended by the finishing coat manufacturer
parquet	- after approx. 21 days	as recommended by the finishing coat manufacturer

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

** ATLAS SAM 100 primer is not suitable for use in wet rooms such as bathrooms

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