



ATLAS SMS 30

Cement-based self-levelling screed, rapid-set (3 – 30 mm)

- foot traffic just after 3 hours
- tiling just after 18 hours
- underneath tiles, panels, carpet, parquet
- low linear contraction
- for leveling heating screeds



Use

Levels surfaces within 3 - 30 mm thickness range - levels local irregularities and sloped floors.

Elevates floor level throughout the room – allows to equalize the level of two adjacent rooms.

For dry rooms – living room, hall, office, corridor, waiting room, etc.

For rooms with increased humidity, e.g. bathroom.

Underneath carpet flooring in office, kindergarten, school, apartment, etc. – very smooth surface and fine aggregate.

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

Possible arrangements:

- **bonded** – thickness **3-30 mm** – high quality concrete, cement or anhydrite screed (with or without floor heating), terrazzo.

Properties

Perfect spreading – ensures perfectly smooth and levelled surfaces even in large rooms, no battens nor screeding level needed.

Rapid-set - rapid strength build-up enables foot traffic just after 3 hours after application.

Compressive strength: $\geq 30.0 \text{ N/mm}^2$.

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

Suitable for manual and mechanical application – easy and quick application manually and mechanically. High application efficiency is reached with helical pump units.

Very low linear contraction - minimum change in linear dimensions during screed drying ($\leq 0.6 \text{ mm/m}$) limits the risk of cracking and loosening of weakened substrates.

Technical data


ATLAS SMS 30 is manufactured as a dry mix based on cement.

Bulk density (of dry mix)	approx. 1.2 kg/dm ³
Mixing ratio (water/dry mix)	0.2 – 0.22 l / 1 kg 5.0 – 5.5 l / 25 kg
Min./max. screed thickness	3 mm / 30 mm
Maximum aggregate size	0.5 mm
Linear changes	$\leq 0.06\%$
Mortar preparation temperature, substrate and ambient temperature during work	from +5°C to +25°C
Pot life (between mass mixing until work end)	approx. 40 minutes*
Foot traffic	after min. 3 hours*
Full setting and drying	28 days*
Installation of tiles	after 18 h
Installation of ceramic tiles	after 18 h for layer up to 5 mm after 48 h for layer up to 10 mm after 72 h for layer up to 20 mm
Installation of parquet and PCV	after 24 h for layer up to 5 mm after 4 days for layer up to 10 mm after 5 days for layer up to 20 mm
Start of heating	after approx. 7 days

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

Technical requirements

The product conforms to PN-EN 13813:2013 standard.

 19 ATLAS SMS 30 (2019) Declaration of Performance no 163/1/CPR EN 13813:2012 (PN-EN 13813:2003)	
Intended use: EN 13813 CT-C30-F7 cementitious screed for indoor use	
Reaction to fire (in case of exposure)	A1 _n
Corrosive substance release	CT
Compressive strength – class	C30
Flexural strength - class	F7

The product has been given the Radiation Hygiene Certificate.

Screed installation

Substrate preparation

The substrate should be stable, sound and air dry, due to the risk of mass outflow, should keep bath-like shape. General requirements for substrates:

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

Substrate irregularities (cracks and gaps) should be primed with ATLAS UNI- GRUNT emulsion or ATLAS UNI- GRUNT ULTRA mass and levelled with ATLAS ZW 330 or ATLAS TEN-10 mortars. Dry, repaired substrate should be dedusted and thoroughly primed with ATLAS UNI-GRUNT or ATLAS UNI-GRUNT ULTRA emulsion and left to dry.

Terrazzo or similar substrates should be degreased and all coats of paste or impregnating sealers should be removed. Terrazzo should be primed with ATLAS ULTRAGRUNT 4 hours before application of SMS 30.

Expansion joints

Separate screed and walls with ATLAS EXPANSION JOINT PROFILES. Expansion joints should also be applied at room thresholds and around load-bearing posts. The existing structural expansion joints should be transferred onto the screed layer.

Mass preparation

Machine application – use mixing-and-pumping units with continuous flow of water. It is advisable to use pumps of efficiency 60 l/min. Pour the dry mix to the basket and set water level providing appropriate mass consistency. Proper consistency can be verified with 0.5 l or 1 l container. The prepared mix, poured from a 0.5 l container onto even, non-absorptive substrate (e.g. foil) should form approx. 35 ÷ 40 cm diameter patch (for 10 l container - 50 ÷ 55 cm).

Manual application – pour the mortar into a container with water (see Technical Data for ratio) and mix with low-speed mixer with a drill for mortars, until homogenous. Remix after 5 minutes. The mass retains its properties for about 40 minutes. Proper consistency should be verified by pouring the mass from 1 l container onto an even, non-absorptive substrate (e.g. foil). It should form a “patch” of approx. 50 ÷ 55 cm diameter.

Screed application

Before application, the intended screed thickness should be marked (on walls and in the application area), which can be done with a spirit level and portable height benchmarks. Pour the prepared mass evenly and continuously up to the desired height, avoid gaps. The application area should be arranged in the way allowing for mass application and de-aeration within approx. 40 minutes. In case of manual application the excessive mass should be raked up towards oneself with a long metal float. Directly after each application area filling, the mass must be de-aerated with a spike roller. For screeds of thickness above 20 mm it is advisable to use a dappling bar. It is recommended to perform de-aeration in two perpendicular directions just after the mass application.

Maintenance

Fresh screed should be protected against excessive drying, direct sunlight, low air humidity or draughts. In order to ensure favourable conditions for screed setting sprinkle surface with water or cover it with foil. Proper maintenance leads to increase of strength of product but also extends the time of drying. Time of drying depends on layer thickness and ambient thermal and humidity conditions. Foot traffic is possible after approx. 4 hours and full load after approx. 7 days.

Finishing works

Before making finishing layers, such as tiles, waterproofing, panels, parquet, epoxy floors and PVC and carpet flooring, the underlay should be sanded and dusted. The same steps should be performed before adding another layer of ATLAS SMS 30. Detailed information on seasoning the ATLAS SMS 30 primer before making the next layers can be found on the last page of the Technical Data Sheet.

SMS 30 on timber, OSB floors

Substrate must be cleaned, dry, clean, free from substances which may impair bonding (e.g. dirt, oil, grease, wax and other insulation layers), non-scratched, resistant to compression and expansion, stable, slightly coarse. Any dislocation or deformation of boards or its edges is unacceptable. Boards should be additionally stabilized with screws or wall plugs if needed. Old timber lacquered or painted floor should be tarnished. In case of substrate tarnishing, it needs thoroughly grinding, dedusting, remove dust with a wet cloth. Such prepared surface should be covered with primer ATLAS ULTRAGRUNT with a brush. After primer drying (in 20°C it is approx. 24 hours), pour SMS 30 in one technological cycle on thickness 5-30 mm.

Consumption

Average consumption is 16,5 kg of mortar for 1 m²/10 mm layer thickness.

Packaging

Foil bags 25 kg.

Important additional information

- Inappropriate amount of mix water results in deterioration of strength parameters of screed. Moreover, the use of too much mix water (overwatering) can cause local dark discolouration. This discolouration is only surficial and disappears after grinding. Monitor the mass consistency and quality of mixing during screed application.
- Tools must be cleaned with clean water directly after use. Difficult to remove remains of set mortar can be washed with ATLAS CEMENT AWAY agent.
- Contains cement. 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), do not expose to direct sunshine, keep in dry, cool and well ventilated room. Protect against humidity – product gets irreversibly solid in contact with damp. Shelf life in conditions as specified is 9 months from the production date shown on the packaging. Content of soluble chromium (VI) in ready-to-use mix - ≤ 0.0002%.

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 engineering principles and OHS regulations. At the time of publication of this product data sheet all previous ones become void.

Date of update: 2021-01-14

