



ATLAS SMS 30

Cement-based self-levelling screed, rapid-set

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



Properties

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

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

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.

Recommended for leveling the surface of existing heating, cement and anhydrite screeds - when the unevenness of the screed makes it impossible to make the final cladding and an additional, thin layer of material must be applied.

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.

Technical data

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 shrinkage	< 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

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 13813:2003 standard.

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 Cement-based screed, for interior use.	
Reaction to fire (in case of exposure)	A1 _{fl}
Corrosive substance release	CT
Compressive strength – class	C30
Flexural strength - class	F7

Screed application

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,

- ATLAS SAM anhydrite screeds - humidity max. 1% CM (by weight) and execution of a layer with ATLAS EPO-S,
 - concrete – min. 3 months old.
- Unevenness of the substrate (hollows and cavities) should be levelled with ATLAS ZW 330 mortar.
- Dry repaired substrate should be dedusted, thoroughly primed, e.g. with:
- ATLAS GRUNT NKP (ready to use - without dilution),
 - ATLAS UNI-GRUNT,
 - ATLAS UNI-GRUNT COLOUR,
 - ATLAS UNI-GRUNT ULTRA.

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 polyethylene expansion joint tape. The size of the working fields should not exceed 36 m², and the side dimension should not exceed 6 m. 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 dosage and flow of water. It is advisable to use pumps of efficiency 60 l/min. Pour the dry mix to the hopper and set water dose 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 1,0 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 paddle mixer, 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 deaerated 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. 3 hours and full load after approx. 7 days.

Finishing works

If the surface of the poured subfloor is milky due to excess amount of water or if unevenness has appeared due to compaction errors

when making the screed (inaccurate dappling), the screed should be sanded and dusted off before making finishing coats or adding another coat of ATLAS SMS 30. **Detailed information on seasoning the ATLAS SMS 30 screed 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 1,65 kg of mortar for 1 m²/1 mm layer thickness.

Packaging

Foil 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.

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.

Shelf life is 9 months from the production date shown on the packaging.

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 SZOP agent.

The information included in the Technical 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 Technical Data Sheet, all previous Technical Data Sheets become invalid. The accompanying documents for the product are available at www.atlas.com.pl. The content of the Technical 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: 2023-04-27

Detailed information on the seasoning process of the screed ATLAS SMS 30 before applying subsequent coats

Type of the next covering on the screed	Seasoning of the screed before laying the respective covering*	Priming of the screed before laying the respective covering**
Levelling/filling with ATLAS SMS 30	after approx. 24 hours	- ATLAS GRUNT NKP (ready to use), - ATLAS UNI-GRUNT, - ATLAS UNI-GRUNT COLOUR, - ATLAS UNI-GRUNT ULTRA.
ceramic tiles (without waterproofing)	Moisture content of the screed 4,0 % - after approx. 18 hours for thicknesses between 3-5 mm - after approx. 48 hours for thicknesses between 6-10 mm - after approx. 72 hours for thicknesses between 11-20 mm - after approx. 96 hours for thicknesses between 21-30 mm	- ATLAS GRUNT NKP (ready to use), - ATLAS UNI-GRUNT, - ATLAS UNI-GRUNT COLOUR, - ATLAS UNI-GRUNT ULTRA.
Waterproofing - ATLAS WODER DUO - ATLAS WODER SX	Moisture content of the screed 4,0 % - after approx. 18 hours for thicknesses between 3-5 mm - after approx. 48 hours for thicknesses between 6-10 mm - after approx. 72 hours for thicknesses between 11-20 mm - after approx. 96 hours for thicknesses between 21-30 mm	wet until matt damp
waterproofing - ATLAS WODER E - ATLAS WODER W	Moisture content of the screed 2,0 % - after approx. 1 day for thicknesses between 3-5 mm - after approx. 4 days for thicknesses between 6-10 mm - after approx. 5 days for thicknesses between 11-20 mm - after approx. 6 days for thicknesses between 21-30 mm	- ATLAS GRUNT NKP (ready to use), - ATLAS UNI-GRUNT, - ATLAS UNI-GRUNT COLOUR, - ATLAS UNI-GRUNT ULTRA.
parquet PVC flooring carpet flooring panels	Moisture content of the screed 2,0 % - after approx. 1 day for thicknesses between 3-5 mm - after approx. 4 days for thicknesses between 6-10 mm - after approx. 5 days for thicknesses between 11-20 mm - after approx. 6 days for thicknesses between 21-30 mm	according to the instructions of the flooring manufacturer
epoxy flooring	Moisture content of the screed 4,0 % - after approx. 18 hours for thicknesses between 3-5 mm - after approx. 48 hours for thicknesses between 6-10 mm - after approx. 72 hours for thicknesses between 11-20 mm - after approx. 96 hours for thicknesses between 21-30 mm	according to the instructions of the flooring manufacturer

* the times apply to normal application conditions:

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

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