



ATLAS SMS 30 (3-30 mm) fast setting, self-leveling screed

- under parquet, tiles, panels, carpet flooring
- foot traffic just after 4 hours
- for leveling floors during renovation
- limited linear contraction



FOR FLOORS



INDOORS



EASY IN USE

1-15 mm

LAYER THICKNESS



FOOT TRAFFIC AFTER 4H



HAND APPLICATION



MACHINE APPLICATION



APPLY WITH FLOAT

Use

Levels surfaces within 3 - 30 mm thickness range - both when substrate has only local irregularities and when it is whole executed with slight slope.

Elevates floor level in the whole room - e.g. when necessary to equalize the level of two adjacent rooms.

Can be used in dry rooms - in living rooms, antechambers, halls, offices, corridors, waiting rooms, etc.

Can be used in rooms of higher humidity, e.g. house bathrooms.

Recommended as a screed under carpet flooring in offices, kindergartens, schools, apartments, etc. - owing to smooth surface and fine aggregate.

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

Types of possible arrangements:

- bonded - thickness 3 - 30 mm - on good quality substrates, e.g. concrete, cement or anhydrite screed (with or without floor heating).

Properties

Perfect spreading - enables execution of smooth horizontal surfaces even in large rooms, with no use of battens and mass raking up with a darby.

Fast-setting - rapid strength build-up enables foot traffic just after 4 hours since application.

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

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

Very low linear shrinkage - minimum changes in linear dimensions during screed drying ($\leq 0.6 \text{ mm/m}$) limit the risk of cracking and loosening of weak substrates (of low cohesion).

Suitable for manual and machine application - can be easily and quickly applied both manually and with machines equipped with helical pumps, therefore high efficiency is reached.

Technical data

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

Bulk density (of dry mix)	approx. 1.20 kg/dm^3
Mass bulk density (after mixing)	approx. 2.00 kg/dm^3
Dry density (after setting)	approx. 1.80 kg/dm^3
Mixing ratio (water/dry mix)	$0.20 \div 0.22 \text{ l/1 kg}$ $5.00 \div 5.50 \text{ l/25 kg}$
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 $+5^\circ\text{C}$ to $+25^\circ\text{C}$
Pot life (between mass mixing until work end)	approx. 40 minutes*
Foot traffic	after min. 4 hours*
Full setting and drying	28 days*
Start of heating	after approx. 7 days*
Fixing the cladding	screed moisture not higher than 1.5% (in case of impermeable or wooden coverings follow the manufacturer's guidelines)

*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 standard. EC Declaration of Performance No. 163/CPR.

CE	PN-EN 13813:2003 (EN 13813:2002)
Cement - based screed CT-C30-F7	self-leveling, for indoor use
Reaction to fire - class	A ₁
Corrosive substance release	CT
Compressive strength - class	C30
Flexural strength - class	F7
Water permeability, vapour permeability, acoustic insulation, noise damping, heat resistance, chemical resistance	NPD
Release/content of hazardous substances	See: Safety Data Sheet

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 GRUNTO-PLAST mass and leveled with ATLAS ZW 330 or ATLAS TEN-10 mortars. Dry, fixed substrate should be dusted and thoroughly primed with ATLAS UNI-GRUNT or ATLAS UNI-GRUNT PLUS emulsion and left to dry.

Expansion joints

Separate screed from walls with ATLAS EXPANSION JOINT PROFILES. The expansions joints should also be executed 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 in the mixing-and-pumping unit, set the mix water level providing appropriate mass consistency. Proper consistency can be verified with the use of 0.5 liter or 1 liter container. The prepared mix, poured from a 0.5 liter container onto even, non-absorptive substrate (e.g. foil) should form a "patch" of approx. 35 ÷ 40 cm diameter (for 1.0 liter container - 50 ÷ 55 cm).

Manual application – pour the mortar from the bag into a container with the suitable amount of water (see Technical Data for ratio) and mix, best with a 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 liter container onto an even, non-absorptive substrate (e.g. foil). It should form a "patch" of approx. 50 ÷ 55 cm diameter.

Mass application

Before application, the future screed thickness is to be marked (on walls and in the application area), which can be done with, e.g. a 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, e.g. a spike roller. For screeds of thickness above 20 mm it is advisable to use a stippler. It is recommended to perform de-aeration in two perpendicular directions just after the mass application.

Maintenance

The freshly applied screed should be protected against excessive drying, direct sunlight, low air humidity or draughts. In order to ensure favourable conditions for screed 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 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

The time of finishing works execution depends on the setting conditions, humidity, type and permeability of the top finish materials and can commence after approx. 24 hours in case of tiling. Parquet, panels and PVC flooring can be installed after approx. 7 days. Minimum screed thickness beneath parquet – 3 mm. Prime the surface with ATLAS UNI-GRUNT or ATLAS UNI-GRUNT PLUS before fixing the cladding.

Consumption

The average consumption is 16.5 kg of mortar for 1 m² for each 10 mm of layer thickness.

Important additional information

- Inappropriate amount of mix water results in deterioration of strength parameters of screed. Moreover, the use of too much mix water (overflow) can cause local dark discolouration. It is a surface phenomenon 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.
- 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%.

Packaging

Foil bags: 25 kg

Pallet: 1,050 kg in 25 kg bags

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.

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