Alsitop SF

Fibre-reinforced, fast-drying, lightweight base-coat plaster/render for all conventional interior and exterior masonry substrates.

AREAS OF APPLICATION

High-yield, fast-setting, mineral lightweight render (LW) type II with fibre reinforcement and and lightweight EPS aggregates to DIN EN 998-1 for masonry with a high insulating capacity, from 15 mm layer thickness, on fair-faced masonry (e.g. aerated concrete) from 10 mm layer thickness, for interior and exterior applications. Suitable as a mesh-reinforced lightweight render for subsequent ceramic cladding (clinker and brick slips).

Not suitable for base areas.

PRODUCT PROPERTIES

- Fibre reinforcement ensures high cracking resistance
- Excellent adhesion to all mineral substrates
- High yield
- Very easy to work with
- Faster drying for quick reworking
- Machine processing or by hand
- Can be reworked with all alsecco textured renders

TECHNICAL DATA

Binder base	Mineral binder to DIN EN 197-1 and DIN 459-2 and aggregates to DIN EN 13139
Mortar category	CS II according to DIN EN 998-1 and P II according to DIN 18550-1
Dry mortar density	approx. 1,0 g/cm³ according to DIN EN 1015-10
Adhesive pull strength	≥ 0,5 N/mm² according to DIN EN 1015-12
Water vapour permeability μ	≤ 20 according to DIN EN 1015-19
Thermal conductivity	T2 to DIN EN 998-1 and $\lambda_{10\ dry} \leq 0{,}2$ W/(mK) to DIN EN 1745
Water absorption	W_2 to DIN EN 998-1 and $c \leq 0{,}20$ kg/(m²$\cdot$min^{0,5}) to DIN EN 1015-18
Compressive strength	> 2,5 N/mm² according to DIN EN 1015-11

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Flexural strength	1,5-2,0 N/mm² according to DIN EN 1015-11
Dynamic modulus of elasticity	> 2.500 N/mm^2

APPLICATION INSTRUCTIONS

Preparation	Mask window sills and connecting parts. Thoroughly cover glass, ceramic, brick, natural stone, varnished, glazed and anodised surfaces. First, render the reveals, grip sockets and damaged areas.
Substrate pre-treatment	All substrates must be stable, level (DIN 18202), clean and free of any residue, which can reduce adhesiveness. Pre-wet substrate in the case of high temperatures. Always pre-wet dry aerated concrete. The substrate should be matt-moist. For improved bonding strength between the rendering base and the subsequent layer of render, wood wool lightweight building boards, smooth and/or slightly absorbent substrates, such as XPS and EPS insulation boards, must be fully coated with Armatop AKS or Armatop A and combed with a notched trowel (notch size 5 mm). Subsequent coats are applied 24 - 72 hours later, depending on weather conditions. Smooth masonry, masonry with inferior absorbency or concrete substrates should be pre-treated with a bonding coat or pricking-up coat. Walls that have been penetrated by moisture must be dried out first. Assessment and preparation of the rendering base as well as application of the render must always comply with VOB/C-ATV-DIN 18350 and DIN 18550-1 or DIN 18550-2, as applicable.
Mixing	Mix 15 kg material (one bag) with approx. 5,3 l of cold water. Mixing with conventional rendering machines, electric mixers or compulsory mixers.
Application	**Render application:** Apply the render by machine or manually with a float and stainless-steel trowel, then smooth over with a slicker. Make sure that work is not interrupted for more than 15 - 20 minutes during the application process. If work is interrupted for more than 20 minutes, the mortar hoses must be cleaned thoroughly if the render is applied by machine. Do not leave mortar hoses exposed to the sun. Use a lattice plane to roughen and level out sintered surfaces. Depending on the weather conditions, the plastering plane may be used on the surfaces after approx. 4 hours. Planing is not essential if the layer of render is already smooth. A bonding primer between the base-coat render and the textured render is not essential. For planed surfaces use a bonding primer that is suitable for the textured render. **Render reinforcement:** In cases where the rendering system is not reinforced throughout, but only in

small sections of the façade, in the areas of shutter boxes, the corners of windows, ceiling edges, mixed masonry etc., we recommend applying partial reinforcement to the substrate, using a product such as Armatop AKS or Armatop A with Mesh 32.

As an alternative to reinforcing just sections of the façade, Universal-Aero glass-fibre mesh may be embedded throughout in the upper third of the base layer.

In highly exposed locations, for lightness values below LRV 30 or top-coat renders with a particle size < 2 mm, a second layer of render is required, e.g. Alsitop SF or Armatop L-Aero with an embedded Universal-Aero glass-fibre mesh. If Alsitop SF is applied as a reinforcement layer, the minimum layer thickness must be 4 mm. Alternatively, Universal-Aero glass-fibre mesh may be embedded throughout in the upper third of the base layer.

The embedded mesh must have at least a 10 cm overlap at the joints. An additional diagonal reinforcement strip must be embedded at the corners of openings, i.e. windows and doors.

If a premium scratch coat is applied as top-coat render, Alsitop SF must be combed in an undulating, horizontal direction using a notched trowel (5 mm notch size).

Armatop A and Mesh K must be used for the reinforcement layer on areas that are to be covered with ceramic cladding. The layer of Armatop A must be at least 4 mm thick. In this case an overall layer thickness of approx. 15 mm for the base-coat and reinforcement render must be complied with.

Where the substrate is porous concrete (minimum quality PP2-0.35), the reinforcement mesh may be embedded throughout in the upper third of the base layer. A minimum base-coat render thickness of 15 mm must be ensured.

Alsibond K is to be used as bedding mortar and Alsifill AK/AS as jointing mortar for the subsequent ceramic cladding. The max. water absorption of the ceramic cladding (clinker and brick slips) according to DIN EN ISO 10545-3 is limited to 6 %.

Clinker and brick slips must possess the following properties:

- Frost-resistance
- Pore volume of the bonding layer on the rear face of the ceramic cladding must be at least 20 mm^3 per gram
- Pore size distribution of the bonding layer on the rear face of the cladding with a maximum pore radius ≥ 0.2 µm

Field definition joints must be incorporated to reduce detrimental stresses in the external wall cladding. The position and dimensions must be specified in the plans. The joints must be installed in compliance with DIN 18540.

Field definition joints should run in straight lines and must be scraped back fully to the levelling mortar or the bare wall and then sealed.

DIN 18515-1 must be complied with when installing clinker and brick slips.

DIN 4108-3 applies with regard to verification of climate-related moisture protection. If the climatic boundary conditions are other than those associated with residential use or if the walls are relatively thin, a calculation must be carried out to demonstrate long-term freedom from condensation.

Due to the organic lightweight aggregate, Alsitop SF must not be used without a top-coat render. Solvent-containing products cannot be used.

	Installing corner rails: Embed a corner bead of the appropriate width for the layer thickness, e.g. Y Corner Bead KU, in Alsitop SF. For further information please refer to the information sheets for specific accessories. **Accessories - wall base / plinth:** Depending on the substrate, products such as Wall-Base Render LP, Armatop Base or Wall-Base Render SF may be applied.
Consumption	approx. 0,8 kg/m² and mm layer thickness. Determine the precise material requirements by means of a trial coating on the object.
Minimum layer thickness	min. of 10 - max. of 15 mm (single-layer) max. of 25 mm (two-layer)
Information about the weather	The temperature must not fall below +5°C and not exceed +30°C during application and drying. Do not apply in direct sunlight. Please note that the setting time is reduced in windy conditions. Protect the plaster against drying out too quickly.
Reworked	**Time for reworking additional reinforcement layers:** At least 2 days **Interval before textured renders can be applied:** At least 4 days for organic textured renders. At least 2 days for mineral textured renders. **Interval before clinker and brick slips can be installed:** The guideline is one day per mm application thickness of the base layer and, if applicable, any additional reinforcement layer. The dependencies of temperature, layer thickness and relative humidity must be observed.
Cleaning of tools	In a fresh state with water.
Application by machine	**Maschinery / Equipment e.g.:** Mixing pump PFT G4 Screw jacket: D6-3 Conveying screw: D6-3 Mortar hoses: 25 mm diam., 35 mm diam. Wet-mortar conveying range: up to 20 m, up to 30 m Please ask for our special information sheet on machine application.

STORAGE

Minimum storage life of 9 months if kept dry, protected against moisture, cool and in original sealed packaging.

PACKAGING INFORMATION

Colour	Natural white
Packaging unit	Paper sack approx. 15 kg net

OTHER INFORMATION

Information on safety	The information provided in the current safety data sheet applies.
Transportation	Not a hazardous material
Giscode	ZP1 cement-based products, low in chromate

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