



bergmann Solar facade filler

Mineral, ecological thin-layer render

Product description

- Thin-layer render especially designed for the bergmann Solar system
- Water-repellent
- Highly water vapour permeable
- Ecological, mineral
- Low surface tension

bergmann Solar facade filler is a light, water-repellent, mineral refurbishment render for indoor and outdoor use based on slaked lime (calcium hydroxide), white ordinary Portland cement (WOPC) and special aggregates to achieve the desired porosity. Ultra-fine hollow glass microspheres (no nano-technology) guarantee a well-balanced temperature and moisture ratio. Mortar group P II DIN V 18550, CS III EN 998-1.

Field of application

bergmann Solar facade filler has been especially designed for the bergmann Solar render system and is also suitable for reworking stable, previously rendered surfaces. Increases crack resistance when combined with mesh and used as reinforcement render. Use as bonding layer on concrete and other smooth and non-absorbent substrates such as Styrodur, etc. before applying bergmann Solar undercoat render, lime or lime/cement renders. Spread as thin-layer render on concrete and precision block walls. Particularly suitable for felted plinth surfaces, etc.

Product properties

Thanks to its excellent structural properties, bergmann Solar facade filler is a versatile high-quality, water-repellent and breathable thin-layer render that is easy to apply. The micro-fine molecule structure helps maintain a balanced temperature and moisture ratio. bergmann Solar facade filler thus meets all the basic requirements for a long-lasting proper functioning of the facade.

General information

Contact us for technical support if you have questions regarding the application or site specifics. Do not mix with any foreign substances. Observe the provisions stipulated in DIN V 18550 / DIN EN 998-1, DIN 18350 VOB (German construction contract procedures) Part C, DIN 18195. Mortar produces a strong alkaline reaction with water. Make sure eyes and skin are protected. In the event of eye contact, wash thoroughly with water and consult a doctor immediately. Please refer to the Material Safety Data Sheet for health and safety advice (latest version available at www.bergmann-solar.com). After hardening, the product presents no risk to health or environment.

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Legal notices

The information provided in this document is based on our technical knowledge and experience at the present time. It must be regarded as a general guideline only. Owing to the large number of potential influences, it does not relieve anyone using or processing our products from the responsibility of carrying out their own tests and experiments, nor does it imply any legally binding assurance of certain properties or that our products are fit for a specific purpose. Responsibility for complying with any property rights, applicable laws or other requirements lies solely with the user. This datasheet invalidates any previous datasheets.

Site requirements

Ensure the background complies with the relevant standards and application guidelines of the manufacturer. Do not apply at site or ambient temperatures below 5 °C or above 30 °C, or when night frost is expected.

Substrate preparation

Substrates should be clean, dry, stable and free from loose particles. Always remove any film-forming release agents. Thoroughly dry or water blast previously rendered surfaces. Check tensile bond strength of critical substrates. Cover dirt-sensitive building elements or seal them off with a water-proof cover. Protect weather-exposed faces from rain. In strong, direct sunlight, screen work with debris netting or postpone the work. The load-bearing capacity and bond strength of the previously rendered or painted surfaces must be tested carefully. Knock off loose friable material and patch with new render, fully remove old loose coats of paint. Wash with a water jet to ensure previously rendered or coated surfaces or concrete surfaces are dust free, and leave to dry completely. Treat chalking or sanding surfaces with bergmann penetrating primer. Rough up XPS insulation boards (e. g. STYRODUR® or similar) that have a smooth surface and carefully remove any dust. If necessary, fix with additional dowels.

Application

Bonding layer:



Apply mortar using a notched trowel (approx. 5 mm notches) to create horizontal lines. The thickest part of the layer should be approx. 5 mm and the thinnest 2 mm. To achieve optimal bond strength, allow bergmann Solar facade filler to set. Apply second coat after 24 hours (under normal conditions + 20 °C / 65 % humidity) using bergmann Solar basecoat, lime or lime-cement renders.

Thin-layer render:



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Spread a layer of approx. 3 mm (or up to 5 mm for concrete surfaces) on the substrate, smooth and float to an even finish.



For final coating, apply thin top coat after initial set, trowel through to the grain thickness and float-felt.

Subsequent treatment

Protect freshly applied render from rain and rapid drying caused by direct sunlight and/or wind.

Coating

Coat with Solar render, Solar paint or any other bergmann finish renders and suitable paints after curing, or apply tiles. When used as base for ceramic wall coverings laid in thin-bed (for moisture load class A0), bergmann Solar facade filler must only be spread to the wall, levelled or roughened up, and then coated with a sealing compound based on plastic-cement combinations, emulsion paints or reaction resins. The render surface must not be smoothed off or trowelled. For tiles and ceramic coverings on bergmann Solar facade filler, please refer to our technical information ‘Plaster for over-tiling’ at our partners website www.franken-bergmann.de or www.bergmann-kroelpa.de or see the section on thin-layer render.

Further processing

bergmann Solar facade filler may be coated after a sufficient waiting time of 1 day per 1 mm render thickness. Lower temperatures or higher humidity may extend this time.

Storage

Shelf life is at least 9 months when stored on pallets in a dry place. For date of manufacture, see information printed on bag.

Silo and machine technology

Can be manually applied or using any standard rendering machines or mixing pumps. In special silos of the bergmann transport and feeder system, with SMP silo mixing pump or assembled SFA silo feeding system on request. In 30 kg paper bags on pallets with 42 bags each = 1,260 t (Franken Bergmann Mauermörtel GmbH & Co.); in 20 kg paper bags on pallets with 42 bags each = 0.840 t (bergmann Baustoffwerk GmbH).

Coverage rates

Application	mm	3	5	8	10
Consumption	kg/m ²	3.8	6.3	10	12.5
Yield	m ² /t	266	160	100	80
	l/t	800			
m ² /30 kg sac		8.0	4.8	3.0	2.4

(The data specified refers to a level substrate)

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Disposal

Make sure to completely empty the buckets and dispose according to official regulations.

Technical specifications

Coverage rates	1 ton yields approx. 800 l fresh mortar
Application temperature	+ 5 °C to + 30 °C
Outdoor application	Yes
Indoor application	Yes
Max. application thickness	6 mm
Min. application thickness	2 mm
Tensile bond strength	$\geq 0.08 \text{ N/mm}^2$
Water absorption	W I
Water vapour permeability	$\mu < 25$
Reaction to fire	A1, non-combustible
Durability	NPD
Thermal conductivity (tabulated value based on EN 1745)	$\lambda_{10, \text{dry mat}} \leq 0.39 \text{ W/(m}^*\text{K)}$ for P = 50 % $\lambda_{10, \text{dry mat}} \leq 0.43 \text{ W/(m}^*\text{K)}$ for P = 90 %
Dry bulk density	$\leq 1400 \text{ kg/m}^3$
Compressive strength (class)	P II DIN V 18550 CS III EN 998-1
Compressive strength (28 days)	Approx. 4.0 N/mm^2
Water ratio	Approx. 8.5 l per 30 kg bag
Fibres	Yes

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