

SM700

Bonding, basecoat and renovation mortar

Product Data Sheet

2025-03



Product description

System approved, fibre reinforced, mineral bonding mortar, basecoat and renovation mortar for WARM WALL systems. As an adhesive on basecoats and as a mortar for renovation, refurbishment and remodeling.

Composition

Cement, hydrated lime, graded limestone grains, limestone powder, silica sand, special fibres, special bonding agent, water-repellents and additives.

Storage

Store the bags on wooden pallets in a dry environment. Can be stored for at least 9 months.

Quality

In compliance with EN 998-1, the product is subject to initial type testing and continuous factory production control. Furthermore, the product is subject to external monitoring and bears the Ü marking as well as the CE marking.

Properties and added value

- General-purpose rendering/plastering mortar GP acc. to EN 998-1
- Compressive strength category CS III acc. to EN 998-1
- Contains fibres and bonding agents
- For application on the façade and plinth area
- For interior and exterior application
- For machine or hand application
- Grain size 1.5 mm
- Colour shade grey

Field of application

- As an adhesive and basecoat for Knauf WARM WALL systems
- Renovation mortar and basecoat when reworking existing old coating layers
- Reinforcement on basecoat
- Mineral render bonding layer
- For application on façades and plinth area

Application

Substrate and pretreatment

Substrate	Pretreatment
Non-stable paint coats	Remove completely.
Render hollows and cavities	Remove completely and fill with a suitable render, take the drying times into account.
Concrete, paint coats, old render	If necessary, clean with a high-pressure water cleaner adapted to the substrate until free of dust and allow to dry completely.
Old plaster / render	Solidify the surface by applying Grundol primer that should be fully absorbed.

Preparation

Check substrate for compliance with VOB part C, DIN 18350/ DIN 18345 chapter 3.1 and/or according to VOB part B, DIN 1961 paragraph 4 no. 3. Clean the substrate of dust and loose parts and remove, ensure that the surface is smooth. Cover easily-soiled building components before commencement in accordance with Code of Practice "Abklebe- und Abdeckerarbeiten für Maler- und Stuckateurarbeiten - Masking and covering for painting and stucco work" (German only) issued by the Bundesverband Ausbau und Fassade. Protect weather-exposed surfaces from precipitation and direct sunlight. Preparation of the substrate in accordance with the Substrate/ Pretreatment table. All substrates must be stable, dry, even and free of grease and dust as well as free of any residual substances that may reduce the adhesion. Test existing coats (paint coats and old renders) for stability and compatibility before application. Allow primer coats to dry for at least 12 hours before continuing work.

Machines / equipment

PFT mixing pump G 4 with agitator (Rotoquirl)

- Stator D4-3
- Rotor D4-3
- Mortar hoses Ø 25 mm
- Wet mortar pumping distance up to 40 m

Mixing

Mixing by hand

Mix the content of one bag with about 6.8 litres of clean water until an application-ready lump-free consistence is achieved.

Mixing by machine

For machine application using mixing pumps, e.g. PFT G4, set the desired consistence by adding water.

Application

Bonding

SM700 can be applied manually or by machine. A stainless-steel trowel must be used. Apply insulation panels immediately, no later than 10 minutes after application of the adhesive, in the fresh adhesive bed by pushing, floating and pressing. Allow a setting time of at least 48 hours before a further coating is applied.

Polystyrene insulation panels

Partial surface on insulation panel

The adhesive bonding surface with the substrate is $\geq 40\%$ after pressing in the insulation panels. Apply an approx. 50 mm wide ribbon of mortar around the perimeter and 3 palm-sized adhesive mortar dabs or strips on the insulation board center.

Entire surface on insulation panel

On even substrates, it is possible to apply the adhesive mortar on the entire surface of the insulation panel with a notched trowel.

Application of adhesive on the substrate by machine

Apply machine applied adhesive in the form of mortar dabs directly on the substrate at spaces of maximum 100 mm using the meandering method and apply the insulation panels immediately by pushing, floating and pressing. The required adhesive bonding surface is $\geq 60\%$ after pressing in the insulation boards. Apply a continuous strip of adhesive in the edge areas. Only apply a maximum of 3 m of adhesive in advance.

Precoated lamellae boards on both sides with mineral wool

Entire surface on insulation panel

On even substrates, it is possible to apply the adhesive mortar on the entire surface of the insulation panel with a notched trowel.

Application of adhesive on the substrate by machine

Apply machine applied adhesive in the form of mortar dabs directly on the substrate at spaces of maximum 100 mm using the meandering method and apply the insulation panels immediately by pushing, floating and pressing. The required adhesive bonding surface is $\geq 50\%$ after pressing in the insulation boards. Apply a continuous strip of adhesive in the edge areas. Only apply a maximum of 3 m of adhesive in advance.

Precoated insulation boards on both sides with mineral wool

Partial surface on insulation panel

The adhesive bonding surface with the substrate is $\geq 40\%$ after pressing in the insulation panels. Apply an approx. 50 mm wide ribbon of mortar around the perimeter and 3 palm-sized adhesive mortar dabs or strips on the insulation board center.

Entire surface on insulation panel

On even substrates, it is possible to apply the adhesive mortar on the entire surface of the insulation panel with a notched trowel.

Application of adhesive on the substrate by machine

Apply machine applied adhesive in the form of mortar dabs directly on the substrate at spaces of maximum 100 mm using the meandering method and apply the insulation panels immediately by pushing, floating and pressing. The required adhesive bonding surface is $\geq 50\%$ after pressing in the insulation boards. Apply a continuous strip of adhesive in the edge areas. Only apply a maximum of 3 m of adhesive in advance.

Reinforcement

At the inside corners of reveal to lintel, embed reinforcement mesh strips or mesh corner angle reinforcement fully into the SM700. Subsequently apply Gewebeeckwinkel 100/150 Mesh Corner Angles 100/150 mm perpendicular and flush, apply the reinforcement layer and level it. Alternatively, embed diagonal reinforcement made of Gewebeeckpfeile mesh corner arrows or reinforcement mesh strips approx. 300 x 500 mm directly in the fresh mortar starting from the corner. Apply mortar in the corresponding render thickness and embed Knauf Armiergewebe reinforcement mesh on the entire surface with at least a joint overlap of 100 mm "fresh-in-fresh". The reinforcement mesh should be fully covered with SM700. The mesh is arranged in the centre of the mortar when the basecoat thickness is up to 4 mm, in case of 5 to 7 mm layer thickness it is in the upper half of the layer. In case of a double reinforcement mesh layer, the mesh layers must be offset to one another. At least 2 to 3 mm mortar must be between the mesh sheets. The diagonal reinforcements are embedded after the first reinforcement mesh layer. Joint overlap of the reinforcement mesh to the first reinforcement mesh and the overlap of the mesh sheets to one another: ≥ 100 mm.

The layer thicknesses of the basecoat layer on Knauf WARM WALL systems is 5 – 7 mm.

Renovation mortar

SM700 can be applied with a coating thickness of up to maximum 10 mm as a leveller of texture imperfections. Apply multiple layers for larger layer thicknesses. Embed Knauf reinforcement mesh if necessary.

Reinforcement mortar

When used as a reinforcement mortar on lightweight renders, a layer thickness of approx. 4 mm should be applied and reinforcement mesh embedded across the entire surface.

When applied as a basecoat, a general drying time of at least 1 day per mm layer thickness should be observed. In case of unfavourable weather conditions (e.g. high air humidity or low temperatures) the drying time will be extended.

Render basecoat

Apply SM700 on concrete, XPS-R, wood fibre panels and similar substrates with a thickness of at least 5 mm. Spread the mortar using a widely notched trowel. Wait at least 1 day and a maximum of 3 days before application of further coats. An additional reinforcement mesh should be embedded when reinforcing the substrate.

Thin-layer bonding finish

Apply in a layer thickness of approx. 3 to 5 mm and spread flush. Embed reinforcement mesh if necessary.

Plinth application

The render system must be protected against the ingress of moisture at the connection to the lower edge. The required render sealing or the necessary moisture protection must be applied up to at least 5 cm above the edge of the ground line or top edge of the covering. In the lower edge, this is recommended for application up to the existing building sealing or perimeter insulating panels. As a render seal / moisture protection, apply Sockel-Dicht in a layer thickness of at least 1.2 mm (dry layer thickness min. 1 mm).

When sufficiently dry, apply a protective cover against damage (e.g. fleece laminated dimpled sheet and slip membrane) up to the ground line.

Application temperature / climatic conditions

Do not apply with air, component and/or substrate temperatures below +5 °C and ensure that the temperature does not fall below this temperature until the render has hardened sufficiently. Furthermore, the temperature should not exceed +30 °C during application.

In order to prevent rapid dehumidification of the fresh render by the exposure to direct sunshine (high surface temperatures), and/or strong wind (danger of cracks, reduction in strength) suitable protection measures / treatment (e.g. protective nets, keeping moist) are required.

Cleaning

Clean the equipment and tools with water immediately after use.

Notes

For application as a bonding and basecoat mortar, the Knauf system data sheet and the National Technical Approval / general type approval for the corresponding Knauf WARM WALL system must be observed. Renders must be applied according to EN 13914, DIN 18550, DIN 55699, DIN 18345 and DIN 18350 well as the generally recognized building engineering rules and valid guidelines.

Heating in rooms should only be put into operation in stages. Rapid dehumidification, e.g. using dehumidifiers should be avoided.

Technical data

Description	Standard	Unit	SM700
Reaction to fire	EN 13501-1	Class	A2-s1, d0
Graining	–	mm	1.5
Compressive strength	EN 1015-11	Category	CS III
Tensile adhesion strength	EN 1015-12	N/mm ²	≥ 0.08 Fracture pattern A, B or C
Capillary water absorption	EN 1015-18	Category	W _c 2
Water vapour permeability coefficient μ	EN 1015-19	–	≤ 25
Thermal conductivity λ _{1,0, dry mat} at P = 50 % P = 90 %	EN 1745	W/(m·K) W/(m·K)	≤ 0.82 ≤ 0.89

The stated technical data were evaluated acc. to the respective test standards. Deviations under site conditions are possible.

Material requirement / efficiency

	Coat thickness mm	Consumption approx. kg/m ²	Yield approx. m ² /bag	m ² /ton
Adhesive (40% adhesive surface)	5.0	3.1	8.1	322
Adhesive (100% adhesive surface)	5.0	7.7	3.3	130
Reinforcement basecoat WARM WALL	5.0 – 7.0	7.6 – 10.5	3.3 – 2.4	131-95
Reinforcement render on basecoat	4.0	5.6	4.5	179
Render basecoat	5.0	7.7	3.3	130

The consumption values were determined under laboratory conditions. Additional consumption resulting from conditions in practice must be taken into account. The material consumption depends on the roughness, evenness and absorption properties of the substrate as well as the machinery used.

Product range

SM700	Application	Packaging unit	Material number	EAN
1.5 mm	25 kg	42 bags / pallet	00763799	4003950143144



Videos for Knauf systems and products can be found under the following link:
youtube.com/knauf



Find the right system for your requirements!
knauf.de/systemfinder



All Knauf Gips documents are available in an up-to-date and clearly organised format in the [Download Center](#) at www.knauf.com

Knauf Gips KG

Am Bahnhof 7
97346 Iphofen
Germany

Knauf Direkt:

knauf-direkt@knauf.com

www.knauf.com

Constructional, structural and characteristic building physics properties of Knauf systems can only be solely ensured with the exclusive use of Knauf system components, or other products expressly recommended by Knauf.

All technical changes reserved. Only the current issue is valid. The specified details correspond with our current state-of-the-art. The generally recognized building engineering rules, applicable standards, guidelines and craftsmanship rules must be observed by the installer in addition to the application specifications. Our warranty is expressly limited to our products in flawless condition. All application quantities and delivery amounts are based on empirical data that are not easily transferable to other deviating areas. All rights reserved. All amendments, reprints and photocopies, including those of excerpts, require our expressed written permission.