

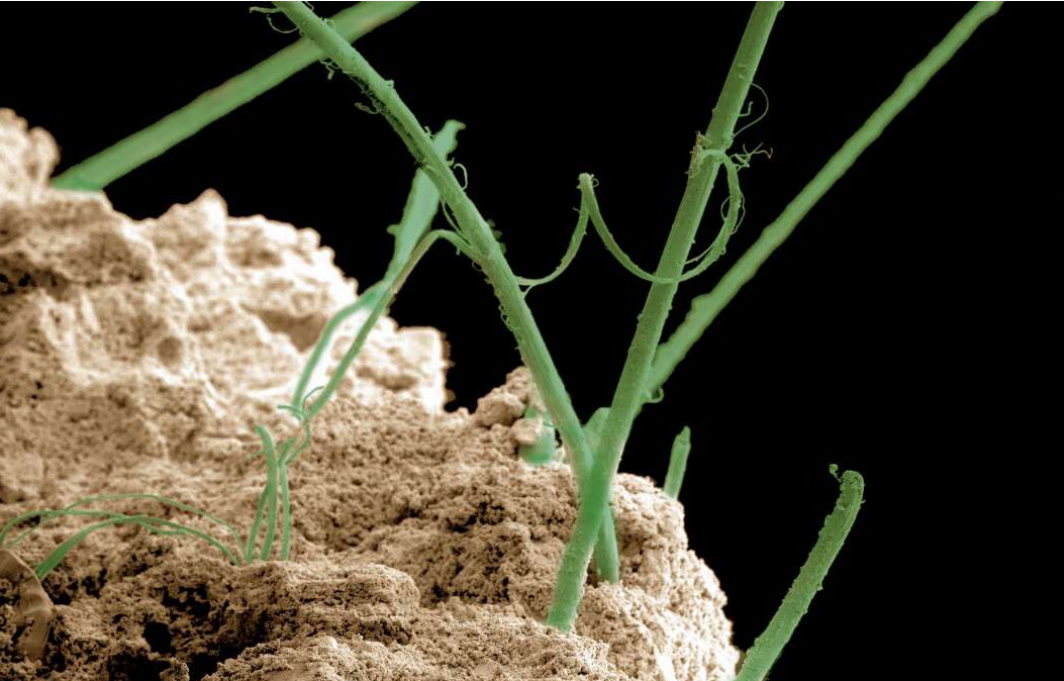
Note on English translation / Hinweise zur englischen Fassung

This is a translation of the technical data sheet valid in Germany.

All stated details and properties are in compliance with the regulations of the German standards and building regulations. They are only applicable for the specified products, system components, application rules, and construction details in connection with the specifications of the respective certificates and approvals.

Knauf Gips KG denies any liability for applications outside of Germany as this requires changes acc. to the respective national standards and building regulations.

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Plaster and Façade Systems

2015-02

Knauf SM700 Pro

Bonding mortar, basecoat, renovation mortar and render finish, white or dyed

Product description

System approved, fibre reinforced, mineral bonding mortar, basecoat and renovation mortar and render finish for façades and plinths.

Composition

Lime hydrate, white cement, graded lime stone graining, lime stone powder, silica sand, special fibres, special bonding agent, water-repellents and additives.

Order information

25 kg bag

- White Material no. 00164930
- Dyed Material no. 00167798

Storage

Store the bags on wooden pallets in a dry environment. The product can be stored for approx. 12 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.

Fields of application

- As an adhesive for Knauf WARM WALL Keramik (Z-33.46-424).
- As a basecoat for the following Knauf systems in timber construction:
WARM WALL EPS/Plus (Z-33.47-899),
WARM WALL Natur D (Z-33.47-638),
WARM WALL Natur S (Z-33.47-1258),
WARM WALL Natur T (Z-33.47-673),
GUTEX Thermowall (Z-33.47-660).
- As an adhesive and basecoat for the following Knauf systems in solid construction:
WARM WALL Basis (Z-33.41-81),
WARM WALL Basis/Plus (Z-33.43-82),
WARM WALL Duo (Z-33.49-981),
WARM WALL Diffutherm (Z-33.43-931),
WARM WALL Plus (Z-33.44-83),
WARM WALL PF Slim (Z-33.43-1235),
WARM WALL PU Slim (Z-33.43-1408).
- Renovation mortar for redecoration
- Plaster basecoat
- Render finish in white or dyed to be sponged or freely textured

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
- Mortar group P II acc. to DIN V 18550
- Suitable for interior and exterior application
- Contains fibres and bonding agents
- For machine or hand application
- Grain size 1.0 mm
- White, approx. RAL 9001 and limited number of colours with Knauf ColorConcept colour shade selector card
- Special colours available on request

Application

Substrate	Pre-treatment
Non-stable paint layers	Remove completely.
Plaster hollows and cavities	Remove completely and fill with a suitable render, take the drying times into account.
Concrete, paints, old render	If necessary, clean with a high-pressure water cleaner until dust free and allow to dry completely.
Chalking or sanding surfaces	Solidify surface by applying Grundol primer. The primer should be completely absorbed.
XPS insulation panels with smooth surface	Roughen surface, remove dust completely and apply additional dowels.

Preparation

Check the substrate for compliance with VOB part C, DIN 18350, chapter 3.1 and/or according to VOB part B, DIN 1961 paragraph 4 section 3. Clean the substrate of dust and loose parts and remove ensuring that the surface is smooth. Cover easily-soiled building components before commencement in accordance with Code of Practice "Abklebe- und Abdekarbeiten für Maler- und Stuckateurarbeiten" 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/Pre-treatment 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 of SM700 Pro. Allow primer coats to dry for at least 12 hours before continuing work.

Mixing

Machine application: For machine application using mixing pumps, e.g. PFT G4 with agitator (Rotoquirl), set the desired consistency by adding water.

Application by hand: Mix the content of one bag with about 6.4 litres of clean water without further

additions until an application-ready lump-free consistency is achieved. When mixing, use clean water and do not add other additives. Clean the machines and tools with water immediately after use.

Adhesive mortar

Application of bonding mortar acc. to table, depending on the insulation material. Apply insulation panels immediately (max. 10 minutes after mortar application) in the fresh bonding mortar bed by pushing, floating and pressing. Allow for a setting time of at least 48 hours before continuing work.

Ribbon and dab method

Apply an approx. 50 mm wide ribbon of mortar around the perimeter of the insulation panels and 3 palm-sized adhesive mortar dabs or strips in the middle.

Full surface application

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

Machine application

Apply bonding mortar directly on the substrate as meandering mortar strips. With a bonding area ratio $\geq 60\%$, the spacing of the strips may not exceed max. 80 mm. Only apply a max. of

Required adhesive bonding area between insulation panel and wall

Application of	EPS Standard Nut&Feder SunJa	MW Wolle 035 ¹⁾	MW Wolle 035 plus 035 plus V coated on both sides	MW Volamit 040 coated on both sides	PF Slimtherm 022 fleece laminated on both sides	PU Slimtherm 026	WF Diffutherm 045
Full-surface application	√	√	√	√	√	√	√
Ribbon and dab method	$\geq 40\%$ ²⁾	$\geq 40\%$	$\geq 40\%$	–	$\geq 50\%$	$\geq 40\%$	$\geq 40\%$
Machine application	$\geq 60\%$	–	$\geq 50\%$	$\geq 50\%$	–	$\geq 60\%$	–
Surface press filling	–	required	–	–	–	–	–

√ possible – not possible

1) Adhesive mortar application: See also Product Data Sheet Knauf MW Wolle 035

2) $\geq 60\%$ with WARM WALL Keramik

Reinforcement in dependence on the finishing plaster and luminosity of the final coating

Finishing coats on SM700 Pro	Graining mm	Luminosity of the final coating				
		100 to 30	29 to 25	24 to 20	19 to 15	14 to 10
SM700 Pro / Noblo Filz	1.0	●	●	●●	○○	○○
Noblo	1.5	●	●	○○	○○	–
SP 260, RP 240, Noblo	2.0 – 5.0	●	●	●	○○	–
Carrara	1.0	●●	○○	–	–	–
Conni S ³⁾	1.0	●	●	●	○○	○○
Kati, Addi, Conni	1.5 – 3.0	●	●	●	●	○○

Reinforcement: ● single ●● double ○○ double coat, only for small surfaces, larger surfaces on request

3) Application of an additional equalization coat with SM700 Pro without reinforcement mesh on the applied reinforcement layer is recommended

Application

3 m of adhesive in advance to the surface being worked.

Basecoat

Embed strips of reinforcement mesh or Gewebeeckwinkel Sturzecke (mesh corner angle for lintel corner) at the inner corners between window reveal and window lintel fully in SM700 Pro. Subsequently apply Gewebeeckwinkel 100/150 (mesh corner angle) perpendicular and flush. If Gewebeeckwinkel Sturzecke (mesh corner angle for lintel corner) is not used, apply additional 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. Subsequently embed Knauf Armiergewebe (reinforcement mesh) on the entire surface with at least a joint overlap of 100 mm "fresh-in-fresh" in the upper third of the basecoat layer. The Armiergewebe (reinforcement mesh) should be fully covered with SM700 Pro.

Thickness of the basecoat layer on Knauf WARM WALL systems:

- 5 – 7 mm, with the exception of:
- WARM WALL Plus 5 – 10 mm,
- WARM WALL PF Slim 6 – 8 mm
- WARM WALL Natur: 7 mm is recommended,
- on a basecoat: approx. 4 mm.

A drying time of min. 1 day per mm basecoat thickness is required prior to application of mineral-based render finishes. Paste-like finishing coats may not be applied before SM700 Pro is fully dry, minimum drying time is 10 days. In addition, we strongly recommend application of a Quarzgrund primer before paste-like finishing coats are applied. The stated drying times may be significantly longer in case of cool or wet weather.

If a double-layer reinforcement is required (see table "Reinforcement in dependence on the finishing render and luminosity of the finishing coat"), the first layer is applied with a thickness

of 3 – 4 mm while embedding the reinforcement mesh with ≥ 100 mm joint overlap. After hardening of the first reinforcement layer, apply a layer of SM700 Pro to the entire surface with a thickness of approx. 2 – 3 mm on the first basecoat layer, while embedding a second layer of Knauf Armiergewebe (reinforcement mesh), again with ≥ 100 mm joint overlap. The diagonal reinforcements are embedded below the last mesh layer. Allow a drying time of at least 1 day/mm layer thickness.

Renovation mortar

SM700 Pro can be applied with a coating thickness of up to 10 mm as a leveller of texture imperfections. Embed Knauf Armiergewebe (reinforcement mesh) if necessary.

Plaster basecoat

Apply SM700 Pro on concrete, XPS-R, wood fibre panels and similar substrates with a thickness of min. 5 mm. Spread the mortar using a widely notched trowel and roughen surface with a brush. Allow a drying and setting time of at least 3 days.

Thin-layer bonding finish

Apply SM700 Pro with a thickness of 3 – 5 mm, spread flush and rub the surface after initial setting.

Render finish

Apply SM700 Pro for sponged or freely textured surfaces with a layer thickness of 2 – 3 mm to the basecoat. The drying time of the basecoat can be reduced to 1 day if the basecoat layer is applied with SM700 Pro. For WARM WALL systems, the drying time can be reduced to 1 day only if EPS or mineral wool insulation boards are used. Start sponging or free texturing with initial setting of the SM700 Pro.

Plinth application

Seal all coated surfaces with contact to the soil up to approx. 50 mm above the ground line against moisture acc. to DIN 18195. For this purpose, Sockel-Dicht (plinth sealing) can be applied with a thickness of at least 2.5 mm

(double layer). Apply a fleece laminated dimpled sheet after drying.

Machines / equipment

Knauf PFT mixing pumps G 4

Stator: D4-3 1/2 capacity

Rotor with extension: D4-3

Mortar hoses: \varnothing 25 mm

Wet mortar pumping distance: up to 40 m

Rotoquirl agitator is required

Application time

Apply SM700 Pro within 2 hours.

Application temperature/climate

Do not apply with air, material and/or substrate temperatures below +5 °C. Protect fresh mortar from frost and rapid drying.

Special notes

For application as a bonding and basecoat mortar, the Knauf System Data Sheet and the National Technical Approval for the corresponding Knauf WARM WALL system must be observed.

For application as a renovation mortar or render finish, apply according to EN 13914-1, EN 13914-2, DIN V 18550, DIN 18550 and DIN 18350, VOB part C as well as the generally recognized building engineering rules and valid guidelines. Only mix the dry mortar with clean water, do not add other additives. With previous application of gypsum plasters or plasters containing gypsum, it is essential that the plastering machine is thoroughly cleaned (wet zone, plaster spiral, rotor, dry zone, gear wheel, hoses).

The mineral finishing render offers some protection against algal and fungal growth and has an inhibiting effect due to its natural alkaline formulation. No guarantee can, however, be given for long-term protection against algal and fungal growth. The susceptibility depends on the local and environmental conditions.

Coating in case of application as render finish

Paints or finishing coats should not be applied until at least 7 days drying time have passed.

In case of an equal colour shade for the render and paint finish, an equalization coat is required (see guidelines of the *Industrieverband Werkmörtel e.V. - Egalisationsanstriche auf Edelputzen* - German only).

In case of different colours of render and paint finish, a coating system is required, consisting of a primer coat (Grundol) and, depending on the shade and substrate, one or more intermediate paint coats and a finishing paint coat.

Knauf Siliconharz-EG-Farbe, Minerol, Fassadol or Autol paints can be used.

If SM700 Pro is applied as render on WARM WALL Natur in timber frame constructions, an equalization paint coat with Siliconharz-EG-Farbe (silicone resin equalizing paint) is imperative in the following cases:

- WF Diffutherm 045 on cladding boards,
- Agepan THD 230 Nut + Feder (corresponds to Knauf WF THD N+F),
- STEICO protect L,
- STEICO protect H or M on cladding boards.

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Technical data

EN 998-1		
Reaction to fire	A2-s1, d0	EN 13501-1
Graining	1.0 mm	–
Compressive strength (category)	CS III	EN 1015-11
Bond strength	≥ 0.08 N/mm ² – failure pattern: A, B or C	EN 1015-12
Capillary water absorption (category):	W 2	EN 1015-18
Water vapour permeability coefficient μ	≤ 25	EN 1015-19
Thermal conductivity $\lambda_{10, dry}$	≤ 0.82 W/(m•K), at P=50% ≤ 0.89 W/(m•K), at P=90%	EN 1745

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

Material requirement and efficiency

	Coat thickness mm	Consumption kg/m ²	Yield m ² /bag	Yield m ² /tonne
Adhesive (rough substrate)	–	6.0	4.2	167.0
Adhesive (level substrate)	–	3.5	7.1	286.0
Mesh reinforcement	5 – 10	7.0 – 13.0	3.6 – 1.9	143.0 – 77.0
Remodelling of textured render finish	4	5.0	5.0	200.0
Render finish (sponged)	3	4.2	6.0	238.0
Plaster basecoat	5	7.0	3.6	143.0

The exact consumption can only be determined with a test application on the individual object.

Knauf Direct

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