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.
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Plaster and Façade Systems

P246.de

Product Data Sheet 2016-11

Lustro

Adhesive and basecoat mortar with lightweight aggregates, white

Product description

System-tested mineral-based high-yield and ultra-lightweight adhesive and basecoat mortar.

Composition

Hydrated lime, white cement, graded limestone grains, lightweight aggregate, micro textile fibres, special adhesive agents, water-repellents and processing agents.

Storage

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

Properties and added value

- Lightweight rendering/plastering mortar LW acc. to EN 998-1
- Compressive strength category CS II acc. to EN 998-1
- For interior and exterior use
- Contains fibres and bonding agents
- Lightweight polystyrene aggregate
- For machine or hand application
- Colour shade white

Adhesive and basecoat mortar with lightweight aggregates, white

Fields of application

- As an adhesive for WARM WALL Keramik (abZ-33.46-424).
- As a basecoat for the following Knauf systems in timber construction:
  WARM WALL Natur D (abZ-33.47-638),
  WARM WALL Natur T (abZ-33.47-673).
- As an adhesive and basecoat for the following Knauf systems in solid construction:
  WARM WALL Basis (abZ-33.41-81)
  WARM WALL Basis/Plus (abZ-33.43-82)
  WARM WALL Duo (abZ-33.49-981)
  WARM WALL Diffutherm (abZ-33.43-931)
  WARM WALL Plus (abZ-33.44-83)
- As a renovation mortar for redecoration
- As a plaster basecoat

Application

Substrate and pretreatment

Substrate	Pretreatment
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, paint coats, old plasters	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 Abdeckarbeiten 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 and 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 the stability and compatibility of existing coats (old plasters and paint coats) before application of Lustro.

Machines / equipment

MA-MA, Lustromat
Knauf PFT mixing pumps G 4

- Stator — D4-3 1/2 capacity
- 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 8 litres of clean water without further additions until an application-ready lump-free consistence is achieved. When mixing, use clean water and do not add other additives.

Mixing by machine
When starting up, adjust water to approx. 240 litres and then set a lean mortar consistence.

Application

Adhesive mortar
Application of bonding mortar acc. to table "Required adhesive bonding area between insulation panel and wall". Apply insulation panels immediately (max. 10 minutes after mortar application) in the fresh bonding mortar bed by pushing, floating and pressing. Allow 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 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 surface ≥ 60 %, the spacing of the strips may not exceed a maximum of 80 mm. Only apply a maximum of 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 Lustro. Subsequently apply Gewebeeckwinkel mesh corner angle 100/150 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 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 Lustro.

Coating thickness of the basecoat layer on WARM WALL systems:

- 5 to 7 mm,

with the exception of:

- WARM WALL Basis and Plus: 5 to 15 mm,
- WARM WALL Natur: 7 mm is recommended,
- On basecoats: approx. 4 mm.

A drying time of at least 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 Lustro 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, the first layer is applied with a thickness of 3 to 4 mm while embedding the reinforcement mesh with at least 100 mm joint overlap. After hardening of the first reinforcement layer, apply a layer of Lustro to the entire surface with a thickness of approx. 2 to 3 mm on the first basecoat layer, while embedding a second layer of 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 per mm layer thickness.

Note	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.

Renovation mortar

Lustro can be applied with a layer thickness of up to a maximum of 10 mm as a leveller of texture imperfections. Embed Armiergewebe reinforcement mesh if necessary.

Note	For application as a renovation mortar apply according to EN 13914-1, EN 13914-2, DIN 18550 and DIN 18350, VOB part C as well as the generally recognized building engineering rules and valid guidelines.

Plaster basecoat

Apply Lustro 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 to dry and set for at least 3 days.

Plinth application

Apply Sockel-SM Pro, Sockel-SM, SM700 Pro or SM300 as a basecoat on the plinth and splash water area and on surfaces in contact with the ground or gravel up to 300 mm above the ground line.
Seal all coated surfaces with contact to the soil against moisture up to approx. 50 mm above the ground line 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.

Note	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).

Application temperature/climate

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

Application time

Apply Lustro within 2 hours.

Cleaning

Clean the machines and tools with water immediately after use.

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	WF Diffutherm 045
Full surface application	●	●	●	●	●
Ribbon and dab method	≥ 40 %[2)]	≥ 40 %	≥ 40 %	–	≥ 40 %
Machine application	≥ 60 %	–	≥ 50 %	≥ 50 %	–
Surface press filling	–	required	–	–	–

1) Adhesive mortar application: See also Product Data Sheet P365a.de MW Wolle 035
2) ≥ 60 % with WARM WALL Keramik
● *possible*
– *not possible*

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Technical data

Description	Unit	Value	Standard
Reaction to fire	Class	A2-s1, d0	EN 13501-1
Graining	mm	1.2	–
Compressive strength	Category	CS II	EN 1015-11
Bond strength	N/mm^2	≥ 0.08 Fracture pattern A, B or C	EN 1015-12
Capillary water absorption	Category	W 2	EN 1015-18
Water vapour permeability coefficient μ	–	≤ 20	EN 1015-19
Thermal conductivity $\lambda_{10,\ dry\ mat}$ at ■ P = 50 % ■ P = 90 %	 W/(m·K) W/(m·K)	 ≤ 0.25 ≤ 0.27	EN 1745

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

Material requirement and efficiency

Application	Coat thickness mm	Consumption approx. kg/m^2	Yield approx. m^2/bag	m^2/ton
Adhesive (rough substrate)	–	3.1	6.5	320.0
Adhesive (level substrate)	–	1.8	11.1	550.0
Mesh reinforcement	5.0 – 15.0	4.3 – 13.0	4.7 – 1.5	232.0 – 77.0

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

Product range

Description	Application	Graining	Packaging unit	Material number	EAN
Lustro	20 kg	1.2 mm	42 bags/pallet	00063304	4003950044038
	Bulk		Silo	00039623	4003950035630

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