



## LUP222® Lightweight lime/cement basecoat render

### PRODUCT PROFILE

Weather-resistant lightweight basecoat render for application to thermal-insulation Poroton blockwork with design thermal conductivity  $\lambda_R > 0.13 \text{ W/(m}\cdot\text{K)}$  and bulk density  $> 700 \text{ kg/m}^3$ , aerated concrete masonry with design thermal conductivity  $\lambda_R > 0.09 \text{ W/(m}\cdot\text{K)}$  and bulk density  $> 500 \text{ kg/m}^3$ , Liapor masonry and other walling materials that are to receive finishing render/render coat. Preparation is required for certain backgrounds.

- mortar group P II to DIN 18550
- premixed dry mortar with lime/cementitious binder
- low-chromate to TRGS (German Technical Regulations for Hazardous Substances) 613
- for indoors and outdoors
- with EPS aggregate
- water-repellent
- vapour-permeable
- weather-resistant
- lower strength range
- low-stress
- for manual or machine application
- good workability

### TECHNICAL DATA FOR HARDENED MORTAR

(DIN 18550/18557/4108/52617)

Bulk density:	1.1 kg/dm <sup>3</sup>
Tensile bending strength:	1.6 N/mm <sup>2</sup>
Compressive strength:	3.4 N/mm <sup>2</sup>
Tensile/compressive strength ratio:	0.47
Dynamic elastic modulus:	2700 N/mm <sup>2</sup>
Water vapour diffusion resistance factor $\mu$ :	10
Thermal conductivity (10°C, dry) $\lambda_{10, tr}$ :	0.29 W/(m·K)
Water absorption coefficient:	$w < 0.5 \text{ kg/(m}^2\cdot\text{h}^{0.5})$

	Grading	Coat thickness	Coverage kg/m <sup>2</sup>	Coverage m <sup>2</sup> /bag	Coverage m <sup>2</sup> /tonne
LUP222	1.5 mm	15 mm	18.3	1.65	55

The above figures are approximate values and may vary according to background type. Preliminary site tests are recommended.

### PREPARATION

Cover or watertightly mask dirt-sensitive elements. Provide netting to protect weather-exposed work surfaces from rain and solar radiation. Clean down strong composite masonry and large lightweight woodfibre slab/composite panel surfaces using dry methods (no pre-wetting). Where required, apply full-cover spatterdash coat of DER VORSPRITZER. Apply approx. 15-20 mm coat of LUP222 and level off. After 4 weeks waiting time and full drying out, incorporate scrim reinforcement over whole surface. Apply 4-5 mm coat of SM700 or LUSTRO and embed MARMORIT basecoat scrim over whole surface.

Clean down small lightweight woodfibre slab/composite panel surfaces using dry methods, roughen XPS-R board surfaces, dust down and additionally secure as required. Apply 5-10 mm coat of SM700 or LUSTRO, strike off with notched trowel and roughen. Allow to dry and set for 3 days prior to application of 15-20 mm

coat of LUP222 and incorporation of reinforcement over whole surface, with min. 10 cm lap at joints between scrim and min. 20 cm lap at joints/junctions in composite masonry.

With concrete, remove laitance, concrete dust or any other matter impairing render bond from background, using high-pressure water jet where necessary.

Pre-wet large calcium silicate blocks, smooth clean concrete, rough-formed concrete, rubble walls, high- or variable-suction composite masonry if required, and spray on approx. 5 mm full-cover spatterdash coat of DER VORSPRITZER. Allow to dry and set prior to resuming work.

Prime aerated concrete with Neutrasit® suction-control coat (diluted 1:1 in water) and allow to dry for 24 hours.

With unsuitable backgrounds, properly fix lathing (Distanet, expanded metal or equivalent). Apply approx. 10-15 mm coat of LUP222. Using notched darby, press into lathing, strike off and comb. After setting, apply a further approx. 10 mm coat of LUP222, strike off level and embed MARMORIT basecoat scrim near surface over whole area, with 10 cm lap at joints, or incorporate scrim reinforcement using SM700 or Lustro. Fix renderwork stop and angle bead true to line in AM300 bedding mortar (rapid-setting cement mortar).

## APPLICATION

For machine application: when starting up, set water to approx. 440 ltr before attaching spray hoses, then set to required, as lean as possible mortar consistency.

For manual application: stir bag contents with approx. 8 ltr water (for max. 2 minutes).

Apply single coat of LUP222 with min. 15 mm thickness to suitably prepared background, strike off level and scrape. Embed basecoat scrim near surface where required.

With Poroton blockwork, aerated concrete or similar thermal-insulation masonry, basecoat may also be applied without background preparation in two operations (wet on wet).

In this case, platform by platform, apply approx. 10 mm coat of LUP222, strike off and embed basecoat scrim near surface where required.

Then apply further 5 mm coat of LUP222 and strike off level. Remove fins, protrusions, irregularities etc. using lattice plane after initial set. Allow to dry and set for 1 day per millimetre render thickness prior to continuing work.

## REINFORCEMENT

Bed MARMORIT basecoat scrim near surface in wet mortar, with 20 cm lap at joints, at junctions between different wall materials, over small lightweight woodfibre slab/composite panel surfaces, above round arches etc. Incorporate corner scrim chevron or 30 x 50 cm scrim patches directly abutting and diagonally above or below corners of all openings.

A SM700 or Lustro reinforcing mortar layer and scrim reinforcement over whole surface using MARMORIT basecoat scrim is required for high-thermal-insulation wall elements, composite masonry, on weather-exposed elevations, for larger render thicknesses, for felt-floated and brushed finishes or textured renderwork with aggregate size less than 2 mm.

## PLEASE NOTE

Rendering works are subject to the requirements of DIN 18550 and DIN 18350 VOB (German Construction Contract Procedures) Part C.

Mix dry mortar only with clean water. Do not use any foreign additives.

Do not apply at air and/or wall temperatures below +5°C. Protect fresh renderwork against frost and premature drying out.

LUP222 may be applied in a single coat of 10-30 mm thickness. Allow to fully dry and set for 1 day per millimetre render thickness prior to application of finishing coat. For render thicknesses of 30-50 mm, apply in two or more coats, embed MARMORIT basecoat scrim near surface over whole area. Roughen undercoat(s) with coarse broom and allow to dry and set for min. 1 day per millimetre render thickness prior to application of next coat. Alternatively, apply single coat of LUP222 and, after drying, incorporate scrim reinforcement over whole surface. Allow 1 week extra drying time for each additional centimetre thickness prior to application of finishing coat.

Allow basecoats to fully dry prior to application of finishing coats and vapour-permeable silicone colour equalization paint.

At plinths and areas in contact with ground:

- For strong backgrounds > 6 N/mm<sup>2</sup>, use UP310 cement plinth render.
- For lightweight or thermal-insulation brickwork/blockwork and backgrounds of compressive strength class ≤ 6 N/mm<sup>2</sup>, use water-repellent SOCKEL LUP lightweight plinth render.

After drying out, all rendered surfaces in contact with ground or gravel beds shall be waterproofed/protected against moisture ingress, starting from basement wall waterproof barrier up to approx. 5 cm above ground level, in accordance with DIN 18195.

Alternatively, a 2.5 mm coat of MARMORIT SOCKEL-DICHT may be applied. Cover with nonwoven-faced studded sheet after drying.

### **SAFETY AT WORK**

Mortar exhibits a strong alkaline reaction upon contact with water. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Once set, the material poses no physiological or ecological hazards.

### **MACHINE/EQUIPMENT**

High-performance MARMORIT MA-MA container machine or mixing pumps such as PFT G4/G5

Stator: D6-3

Rotor: D6-3

Mortar hoses: 25 mm dia

Wet mortar pumping distance approx. 30 m

No additional equipment such as Rotoquirl remixer required!

See technical information on render and machine.

### **COMPOSITION**

Binder:

Hydrated lime to DIN 1060

Portland cement to DIN 1164

Aggregate:

Quartz and limestone graded to DIN 4226, 0-1.5 mm

Polystyrene bead (STYROPOR®)

Admixtures:

Water-retaining admixture and water-repellent

### **QUALITY**

The product is subject to continuous in-house and external monitoring to DIN 18557 and carries the RAL Quality Label for premixed dry mortar.

### **DELIVERY FORM/SHELF LIFE**

30 kg paper bags, in bulk form and in container with MA-MA machine

Shelf life 6 months, subject to storage in dry, moisture-protected environment.

### **SUPPLY**

Via Marmorit approved applicators or local distributors

### **NOTE**

This data sheet, which replaces all previous editions, is designed to provide you with advice and assistance. The information presented herein reflects our present state of knowledge. It cannot, however, embody the sum total of good practice, nor incorporate the provisions of all relevant standards, codes of practice and guidelines. These – together with the relevant application rules and guidelines – shall be duly observed by the applicator!

### **TECHNICAL ADVICE**

Information and advice may be provided by our external representatives or the MARMORIT Technical Department

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