DATA SHEET **Sept 2014**

UP210
Lime/cement basecoat render

PRODUCT PROFILE

Lime/cement render for application as water-repellent basecoat to medium-weight masonry of bulk density > 700 kg/m^3, to receive mineral finishing coats and synthetic resin finishes, where necessary after preparation. Particularly suitable for damp areas, cellars/basements, garages, as basecoat for scratch renders and as base for tiling in bathrooms, kitchens, damp areas etc.

- mortar group P II/strength class CS II to DIN V 18550/DIN EN 998-1
- premixed dry mortar with lime/cementitious binder
- low-chromate to TRGS (German Technical Regulations for Hazardous Substances) 613
- fire rating A (non-combustible)
- for indoors and outdoors
- water-repellent
- vapour-permeable
- moisture-absorbent
- for manual or machine application
- greyish beige

TECHNICAL DATA (DIN EN 998-1, DIN V 18550)	
Bulk density:	1.5 kg/dm³
Tensile bending strength:	1.8 N/mm²
Compressive strength:	3.5 N/mm²
Dynamic elastic modulus:	5900 N/mm²
Water vapour diffusion resistance factor μ:	10
Thermal conductivity (10°C, dry) $\lambda_{10,dry}$:	≤ 0.47 W/(m·K), for P=50%
	≤ 0.54 W/(m·K), for P=90%
Capillary water absorption:	W 2

COVERAGE CHART					
	Grading	**Coat thickness mm**	**Coverage kg/m²**	**Coverage**	
				m²/bag	**m²/tonne**
UP 210	1.0 mm	10.0	15.4	2.0	65.0
UP 210	1.0 mm	20.0	30.8	1.0	32.5

The above figures are approximate values and may vary according to background type.

PREPARATION

Cover or watertightly mask dirt-sensitive elements.
Provide netting to protect weather-exposed work surfaces from precipitation and solar radiation.
Clean down small lightweight woodfibre slab panel surfaces using dry methods (no pre-wetting). Spray on approx. 5 mm full-cover spatterdash coat of DER VORSPRITZER or apply min. 5 mm coat of SM700, strike off with notched trowel and roughen. Allow to dry and set for 3 days prior to application of UP210.
Clean down composite thermal-insulation block masonry and large lightweight woodfibre slab surfaces using dry methods (no pre-wetting). Apply min. 15 mm coat of UP210 and level off. After 4 weeks waiting time and full drying out, incorporate scrim reinforcement over whole surface using SM700.
Roughen small XPS-R board surfaces and dust down. Apply min. 5 mm coat of SM700, strike off with notched trowel and roughen. Allow to dry and set for 3 days.

No preparation is required for new perforated or porous clay bricks/blocks, expanded clay, pumice or calcium silicate masonry units up to a size of 50 x 25 cm, only pre-wet where appropriate.
Remove laitance, concrete dust or any other matter impairing render bond from masonry, using high-pressure water jet where necessary.
Pre-wet smooth- or rough-formed concrete, large calcium silicate blocks, rubble walls, high- or variable-suction composite masonry if required. Spray on approx. 5 mm full-cover spatterdash coat of DER VORSPRITZER or apply SM700 using widely notched trowel and roughen.
Allow to dry and set for 24 hours prior to continuing work with UP210.
With unsuitable backgrounds, properly fix lathing (Distanet, Armanet or equivalent). Apply approx. 10 mm coat of UP210. Using notched trowel/notched darby, press into lathing, strike off and roughen. After UP210 has set, apply a further approx. 10 mm coat, strike off level and embed scrim over whole surface, with 10 cm lap at joints.
Fix renderwork stop and angle bead true to line with AM300 bedding mortar (rapid-setting cement mortar).

APPLICATION
Set water to approx. 420 ltr when starting up machine, then set to as thin a mortar consistency as possible. Pre-lubricate hoses with wallpaper paste.
For manual application: mix bag contents with approx. 5.6 ltr water.
Apply UP210 to suitably prepared background in a 10 mm coat internally and min. 15 mm coat externally, strike off level and scratch.
As basecoat for scratch render, apply approx. 10 mm coat, strike off level and roughen with broom. Embed basecoat scrim where required. Allow to dry and set for 1 day per millimetre render thickness prior to continuing work.

REINFORCEMENT
Bed basecoat scrim near surface in wet mortar, with 20 cm lap at joints, at junctions on facades between different wall materials, over small lightweight woodfibre slab or XPS-R board surfaces, diagonally above or below corners of openings etc.
Incorporation of scrim over whole surface in final coat or, after drying, scrim reinforcement using SM700 or Lustro is recommended to meet special demands, e.g. for composite masonry, on weather-exposed elevations, for felt-floated and brushed finishes or textured renderwork with aggregate size less than 2 mm (< 3 mm specified by DIN 18350, VOB – German Construction Contract Procedures – Part C).

PLEASE NOTE
Rendering works are subject to the requirements of DIN EN 13914 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.
UP210 may be applied in a single 10-20 mm coat. For render thicknesses of 20-35 mm, apply UP210 in 2 coats and embed MARMORIT basecoat/reinforcing scrim over whole surface or, after full drying and setting, incorporate scrim reinforcement over whole surface using SM700 or Lustro.
Roughen undercoat(s) and allow to set prior to application of next coat. Allow 1 week extra drying time for each additional centimetre thickness prior to continuing work.
To achieve a paintable felt-floated finish on internal walls, overcoat hardened, though not yet fully dried basecoat with a further approx. 3 mm coat of UP210 on following day or, alternatively, apply approx. 2 mm coat of FIP290 felt-float render after drying and properly felt float after initial set.
Allow UP210 to fully dry prior to application of finishing coats or MARMORIT ROTKALK FARBE, KATOL or INTOL paints.

PLINTH TREATMENT
At plinths and areas in contact with ground: for strong backgrounds > 6 N/mm^2, use UP310 cement plinth render.
For lightweight or thermal-insulation brickwork/blockwork of compressive strength class $\leq$ 6 N/mm^2, and high-thermal-insulation masonry > 6 N/mm^2, use water-repellent SOCKEL LUP lightweight plinth render (mortar group P II/ CS III). For self-contained areas of XPS-R board, incorporate scrim reinforcement using SOCKEL-SM with double-layer scrim reinforcement.

After drying out, all rendered surfaces in contact with ground or gravel beds shall be waterproofed/protected against moisture, starting from basement wall waterproof barrier up to approx. 5 cm above ground level, in accordance with DIN 18195.
To this end, a 2.5 mm coat of MARMORIT SOCKEL-DICHT may be applied. Cover with nonwoven-faced studded sheet after drying.

SAFETY AT WORK
Mineral mortars exhibit an alkaline reaction upon contact with water. Causes eye irritation. Avoid contact with skin and eyes. Wear eye/face protection. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Requirements of safety data sheet shall be observed (current version obtainable at www.marmorit.de).
Once set, the material poses no physiological or ecological hazards.

MACHINERY/EQUIPMENT
High-performance rendering machines (e.g. PFT G4, G5 or equivalent)
Stator: D6-3
Rotor: D6-3
Mortar hoses: 25 mm dia
Wet mortar pumping distance: up to 30 m

COMPOSITION
Binder:
Hydrated lime to DIN EN 459, trass to DIN 51043, white Portland cement to DIN EN 197.
Aggregate:
Quartz and limestone graded to DIN 4226, 0-1.0 mm
Admixtures:
Water-retaining admixture and water-repellent.

QUALITY
In accordance with DIN EN 998-1, the product shall be subject to initial type testing and ongoing factory production control (FPC). Being additionally subject to external monitoring, it is entitled to carry – alongside the CE mark – the RAL Quality Label for premixed dry mortar.

DELIVERY FORM/SHELF LIFE
30 kg paper bags and in bulk form in container.
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 Technical Department