

CASEA Bauprotec 850 M – Lightweight Lime Cement Render

CASEA Bauprotec 850 M is a factory produced Lightweight Lime Cement Render specially designed for machine or hand application produced to EN 998-1: 2016. It's manufactured from a controlled blend of selected aggregates, lightweight aggregates, cement, polymers, fibres and other components to give a high quality weather resistant rendering product which is suitable for use in external rendering and internal plastering. The unique properties of this render makes it suitable for application on low, medium and high density substrates.

- Lightweight – Low Tension
- Machine or Hand Application
- High Yield
- Weather Resistant
- CE Marked
- EN 998-1:2016

Field Of Application

A lightweight render for facades and walls constructed out of low, medium and high density blockwork and any other masonry substrate. The product's special composition allows the product to breathe and also permits constant hygrometric exchange between the substrate and the environment.

Substrate

Substrates to be rendered should be examined for contamination, deterioration, surface roughness, suction and strength. Dust and contamination such as residues of concrete release agents, gypsum plaster, paint, other coatings, organic growth, salts and efflorescence should be removed prior to rendering. Salts and efflorescence should be removed by dry brushing (non-metallic bristles). Other special precautions may need to be taken if this removal is not achievable.

The line and flatness of the substrate should also be assessed to determine if the render can be applied to a uniform thickness or if dubbing out is required. The substrate should be reasonably dry and free of frost, with a temperature of +5 °C or above at the time of rendering. It is important for the wall not to be too wet at the time of rendering. Walls that have recently been exposed to heavy rain should be allowed to dry out sufficiently before rendering is attempted.

Preparation

Bauprotec 850 M should only be applied to mature stable surfaces. A minimum of one month should be allowed following completion of the wall construction

before application of the render commences. In slow drying situations, a longer interval should be allowed. All substrates must be clean, sound and dust free as the render relies on a combination of suction and surface texture to achieve bond. The recommendations set out in EN 13914-1:2016 and BS 5262:1991 should be followed. It is essential that all steps are taken to ensure that a satisfactory bond is achieved between the render and the substrate.

Instructions

Bauprotec 850 M can be applied using all suitable spray rendering machines (e.g. G 4, G 5, m3, S 48, MP25, SP11 etc) and can be transported on all pneumatic conveyor systems. When hand applied, mix for 5 minutes using a suitable electric mixer. Do not mix with other products. In case of great unevenness in the substrate (e.g. rough stone masonry) the recesses require dubbing out. On high absorbent substrates it is essential to apply the render in two passes, pressing the first pass well into the surface using a straight edge and trowel. Then prior to the first layer drying, apply the second pass (wet in wet) extending the render to the desired uniform thickness. When the render is partially set, finish to the desired finish using a steel float, wood float or grid float. The open time, after mixing, is approximately two and a half hours. However, the open time greatly depends on the consistency of the render, the ambient temperature and the absorbency of the substrate.

Application

During application the temperature must be between 5 - 35°C. Bead out the application area with Stainless Steel, Aluminium or UPVC beading, which also serves as a reference for the thickness applied. Beads need to be carefully bedded in Bauprotec 850 M. Always maintain a wet edge when working in sections. In sunny weather, work should commence on the shady side of the building and be continued, following the sun to prevent the rendering drying out too rapidly

Practical Advice

We recommend the use of a mineral key coat (Bauprotec RHS) on concrete and smooth / non-absorbent substrates prior to the application of Bauprotec 850 M. Fibreglass mesh must be embedded into the render when applied on critical substrates, in case of changes in substrate material and at stress points around openings.

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Storage

9 months under dry, protected conditions.

Disposal Considerations

13.1 Waste treatment methods: Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system. Uncleaned packaging: Recommendation: Disposal must be made according to official regulations. Recommended cleansing agents: Water, if necessary together with cleansing agents.

Safety

All standard precautions for the handling of construction materials/chemicals must be taken. See CASEA Health and Safety Data Sheet for further detailed information. Classification according to Regulation (EC) No 1272/2008: **GHS05 corrosion**, Eye Dam. 1 H318 Causes serious eye damage. **GHS07**, Skin Irrit. 2 H315 Causes skin irritation. Labelling according to Regulation (EC) No 1272/2008. The product is classified and labelled according to the CLP regulation: **Hazard pictograms:** GHS05, GHS07. **Signal word:** Danger. **Hazard-determining components of labelling:** calcium dihydroxide, Cement, portland, chemicals.

Hazard Statements

H315 Causes skin irritation.
H318 Causes serious eye damage.


Precautionary Statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 Wash thoroughly after handling.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P321 Specific treatment (see on this label).
P332+P313 If skin irritation occurs: Get medical advice/attention.

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Technical Information

Standard	CS II as per DIN EN 998
Yield as per standard	1.20 kg/mm/m ²
Consumption	Approx. 18 kg/ m ² per 15 mm applied thickness
Water Demand	Approx. 6.7 l per 25kg bag 8 l per 30 kg bag
Compressive Strength	> 3.0 N/mm ²
Flexural Strength	Approx. 1.5 N/mm ²
Modulus of Elasticity	Approx. 2 kN/mm ²
Water Absorption	W2 as per DIN EN 998
Water Vapour Permeability Coefficient	$\mu \leq 20$
Adhesion	≥ 0.08 N/mm ² FP A, B or C
Compressive Strength	CS II as per DIN EN 998
Thermal Conductivity (Tabular Value)	λ_{10} , dry,mat ≤ 0.39 W/(mK) at P=50% λ_{10} , dry,mat ≤ 0.43 W/(mK) at P=90%
Dry Bulk Density	< 1250 kg/m ³
Grain Size	0-1 mm
Reaction to Fire	Building material class A 1, not combustible
Packaging	25kg and 30kg bags

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Reaction to fire Compressive strength Water absorption Water vapour permeability coefficient Adhesion Thermal conductivity (Tabular value) Durability Dangerous Substances	A1 CS II W2 $\mu \leq 20$ ≥ 0.08 N/mm ² FP A,B or C λ_{10} , dry,mat ≤ 0.39 W/(mK) at P=50% λ_{10} , dry,mat ≤ 0.43 W/(mK) at P=90% NPD* NPD*

*NPD = No Performance Determined

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