

## CASEA Bauprotec FLP Plus – Ultra Lightweight Fibre Render

CASEA Bauprotec FLP Plus is a factory produced highly efficient lightweight mineral lime cement render produced to EN 998-1, specially designed for high insulating masonry for interior and exterior use with excellent working properties. Bauprotec FLP Plus is water-repellent and consists of hydrated lime, cement, sands, lightweight aggregates, fibres and additives to improve its workability. Bauprotec FLP Plus is specially formulated for machine application, however manual application is also possible. Grain size 0-1mm.

- Designed for High Insulating Masonry
- Machine or Hand Application
- High Yield
- Weather Resistant
- CE Marked
- EN 998-1:2003

### Field Of Application

An ultra lightweight render for facades and walls constructed out of highly insulating masonry substrates. 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 FLP Plus 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 13914-1:2005 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 FLP Plus can be used with all standard plaster machines (such as G 4, G 5, m3, S 48 etc.) and transported using all commonly used delivery systems. The use of a lightweight plaster mixing spiral is recommended. For manual application, Bauprotec FLP Plus is mixed using an electric mixer to form a lump-free mass and mixed thoroughly for a few minutes. Do not mix with other materials. If the substrate is highly uneven (e.g. fractures), the recesses must be filled in beforehand. When plastering, the plaster is applied in two coats, wet-on-wet. Therefore, it is recommended to pre-spray an entire side of the building in a thin coat of plaster and then to apply the required plaster thickness with the second coat. Once it has been applied to the desired thickness, the plaster is levelled. Once hardened, the projecting ridges are removed; complete scraping with a grid float is not recommended. The open time following initial mixing is approximately 1.5 hours. However, the open time depends on the consistency of the plaster, the ambient temperature and the absorbency of the substrate. Suitable measures must be taken to protect the freshly applied plaster against external influences (sun, strong winds, rain, frost etc.). When applying a mineral or synthetic finishing coat with a fine grain size (< 2 mm) it is recommended to apply a 3mm fibreglass reinforced coat of Bauprotec RHS onto the hardened Bauprotec FLP Plus base coat. This procedure is also recommended with severely impacted facades (e.g. the weathered side of the building).

### Application

During application the temperature must be between 5-30°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 SLP Plus or RHS. 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.

### Storage

9 months under dry, protected conditions.

## Practical Advice

On concrete and smooth / non-absorbent surfaces, we recommend using the mineral adhesive mortar Bauprotec RHS for substrate preparation. On critical substrates, if there are material changes in the substrate and if there are notches or recesses in the surface, fibreglass mesh must be embedded in the undercoat plaster, or better still, spread onto the base coat plaster with Bauprotec RHS and mesh.

## 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

Classification according to Regulation (EC) No 1272/2008. The product is classified and labelled according to the CLP

regulation. Hazard pictograms **GHS05** corrosion, **GHS07**. Signal word **Danger**. Hazard-determining components of labelling: calcium dihydroxide, Cement, portland, chemicals. All standard precautions for the handling of construction materials/chemicals must be taken. See CASEA Health and Safety Data Sheet for further detailed information.

### 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.

Designation	CS II as per DIN EN 998
Compressive Strength	> 2.5 N/mm <sup>2</sup>
Flexural Strength	1.0 N/mm <sup>2</sup>
Modulus Of Elasticity	2.5 kN/ mm <sup>2</sup>
Water Vapour Permeability	$\mu \leq 15$
Adhesion	$\geq 0.08$ N/mm <sup>2</sup> A, B or C
Thermal Conductivity (tabular values)	$\lambda_{10}$ , dry,mat $\leq 0.18$ W/(mK) at P=50% $\lambda_{10}$ , dry,mat $\leq 0.20$ W/(mK) at P=90%
Delivery	approx. 1,350 l/t; approx. 90 m <sup>2</sup> @ 15mm; approx. 1.8 m <sup>2</sup> per 20kg bag
Yield	11 kg/m <sup>2</sup> @ 15mm
Water Demand	approx. 6 l per 20kg bag
Capillary Water Absorption	W1 as per DIN EN 998
Dry Bulk Density	< 850 kg/m <sup>3</sup>

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<b>10</b> <b>CASEA-114 735</b> <b>EN 998-1: 2010</b> <b>Lightweight rendering/plastering mortar LW</b>	
Reaction to fire	<b>A1</b>
Durability	<b>NPD</b>
Dangerous Substances	<b>NPD</b>

NPD Properties not determined as they are not relevant (No Performance Determined)

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