

Note on English translation / Hinweise zur englischen Fassung

This is a translation of the product 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.

Knauf Gips KG denies any liability for applications outside of Germany as this requires changes acc. to the respective national standards and building regulations.



Plaster and Façade Systems

P291a.de

Product Data Sheet

2021-08



UP 310

Cement plinth plaster

Product description

Mineral cement basecoat plaster specially for the plinth and cellar wall exterior. As a basecoat for tiles and particularly with high and very high levels of exposure to moisture (e.g. for wet rooms and areas of high humidity) as well as a basecoat for mineral and bituminous waterproofing of buildings.

Composition

Cement, hydrated lime, graded limestone grains, water-retaining and water-repellent additives.

Storage

Store the bags on wooden pallets in a dry environment. The product can be stored for at least 9 months.

Quality

In compliance with EN 998-1, the factory-made rendering/plastering mortar is subject to initial type testing and continuous factory production control and bears the CE marking.

Properties and added value

- General-purpose rendering / plastering mortar GP acc. to EN 998-1
- Compressive strength category CS IV acc to EN 998-1
- For interior and exterior application
- For machine or hand application

Field of application

Particularly suitable in exteriors as a plinth plaster on

- Masonry of compressive strength category > 8
- Normal weight concrete
- As a basecoat for mineral and paste-like finishing coats
- As a basecoat for mineral and bituminous waterproofing of buildings

In interiors on suitable types of masonry and concrete

- As a basecoat for mineral and paste-like finishing coats
- As a basecoat for tiles

Application

Substrate and pretreatment

| Substrate | Pretreatment |
|---|--|
| Masonry of compressive strength category > 8. Even and normally absorbent lime sandstone masonry | On highly absorbent substrates or in hot summer weather, apply a double plaster layer fresh in fresh |
| Masonry on weakly absorbent to non-absorbent and/or smooth, glossy lime sandstone masonry | Socket-SM or Der Vorspritzer as a mineral bonding layer |
| Rough form work concrete, absorbent concrete, masonry with varying suction properties, small format multi-layer wood wool slabs | Socket-SM or Der Vorspritzer (VP) as a mineral bonding layer |
| Smooth concrete, prefabricated concrete units | Socket-SM as a mineral bonding layer |
| XPS-R insulation boards | Socket-SM as a mineral bonding layer |
| Absorbent masonry made of small format bricks, random rubble walling and mixed brickwork | Der Vorspritzer as a mineral bonding layer |

Mineral bonding layer (with the exception of Der Vorspritzer) should be spread and ruled across the full surface with a widely notched trowel. Wait at least 1 day and a maximum of 3 days before application of further coats.

Preparation

Check the substrate for compliance with VOB part C, DIN 18350, chapter 3.1.1 and express legitimate concerns acc. to VOB part B, DIN 1961 paragraph 4 section 3. Check the plastering substrate by a scratch test, wipe test or wetting test and measure the temperature if appropriate. Clean the substrate of dust and loose parts and remove, ensure that the surface is smooth. Cover easily-soiled building components before commencement in accordance with Code of Practice "Abklebe- und Abdekarbeiten für Maler und Stuckateurarbeiten - Masking and covering for painting and stucco work" issued by the German "Bundesverband Ausbau und Fassade". Protect weather-exposed surfaces from precipitation and direct sunlight.

Substrate pretreatment according to the 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.

Machines / equipment

PFT mixing pump G 4

| | |
|-------------------------------|------------|
| ■ Stator | D6-3 |
| ■ Rotor | D6-3 |
| ■ Mortar hoses | Ø 25 mm |
| ■ Wet mortar pumping distance | up to 30 m |

Mixing

Mixing by hand

Mix the content of one bag with 5.6 litres of clean water without further additions until an application-ready lump-free consistence is achieved.

Mixing by machine

For machine application using mixing pumps, e.g. PFT G4, set the desired consistence by adding water.

Product application

Apply UP 310 as a basecoat in the plinth area at a minimum thickness of 15 mm on a plastering substrate if already available. In case of multi-layer render systems (basecoat, reinforcement and finish coats) ensure an average total plaster thickness of at least 20 mm. In interiors apply an average plaster thickness of 10 mm. Depending on the substrate, fins and protrusions etc. can be removed with a lattice plane when sufficiently hardened or the surfaces can be levelled and scraped. Clean the machine and hoses with longer breaks / interruptions in application. Do not leave the mortar and water hoses lying in the sun. Do not stir and do not apply material that has started to harden. Work with multiple layers in case of plaster thicknesses exceeding 20 mm.

Full surface reinforcement plaster in exteriors

Exterior plaster surfaces where the plaster system is exposed to increased stress, e.g. particular exposure of the façade, use of freely structured, brushed or sponged finishing plasters, with finishing plasters < 2 mm grain size (acc. to DIN 18350, VOB part C, < 3 mm), high levels of moisture, considerable irregularities in the plaster substrate, increased residual moisture of the masonry, large plaster thickness > 20 mm and insulation layers made of XPS-R with a strip width > 60 cm, a full-surface reinforcement plaster with mesh insert (reinforcement mesh 4x4 or 5x5 mm) with Socket-SM, SM700 Pro or SM300 on the hardened basecoat is recommended. Embed additional diagonal corner reinforcement on all building openings.

Partial surface reinforcement e.g. with change of material, building openings etc.

In case of a change of materials in the plaster substrate, at locations where there is a risk of cracking, where XPS-R insulation boards are installed on a small surface, wood wool lightweight boards, different plaster thicknesses and expected stresses from the basecoat etc., basecoat mesh (8x8 mm) with at least 100 mm joint overlap and 200 mm overlap on all sides to the flanking component is to be embedded in the upper half of the basecoat.

Note

A full surface reinforcement basecoat is always preferable to partial surface reinforcement in exteriors.

Plinth application

After drying out, all rendered surfaces below the ground line shall be waterproofed/protected against moisture ingress, starting from basement wall waterproof barrier up to approx. 50 mm above the ground line using Sockel-Dicht acc. to DIN 18533-3.

Apply Sockel-Dicht in a layer thickness of at least 2.5 mm (dry layer thickness at least 2 mm) for this purpose.

When using Sockel-SM Pro on UP 310, apply Sockel-SM Pro over the lower plaster stop profile on the existing building waterproof sealing or flanking building material / substrate and overlap by at least 50 mm. Additional subsequent moisture protection is not necessary.

A protective layer with slip membrane (e.g. fleece laminated dimpled sheet) should be provided on the construction as protection against damage after drying.

On plaster bases

On a plaster base applied according to manufacturers instructions, apply about a 10 mm thick coat of UP 310 and level it while pushing it into the plaster base. Roughen the surface with a broom. After setting, apply another layer about 10 to 15 mm thick and rule level. To minimize the occurrence of cracks on the plaster surface, apply a reinforcement plaster with Sockel-SM, SM700, SM700 Pro or SM300 and full surface mesh insert with Knauf reinforcement mesh 4x4 or 5x5 mm. The plaster thickness of the reinforcement plaster layer should be between 3 and 5 mm. Insert additional diagonal reinforcement to reduce notch cracking on all building opening corners.

Substrate for tiling

Suitable as a substrate for tiles and floor slabs. The basecoat is generally a single-layer with a plaster thickness of at least 10 mm. The suitability as a base for the application of tiles is improved, if the plaster surface is applied as a tight coat with a straight edge/feather edge or scratched.

The surface texture must be matched to the requirements of the respective waterproofing type.

Allow to dry and set fully before a tile covering is applied. The tile adhesive must be suitable for the basecoat.

Application with water action classes W0-I to W3-I acc. to DIN 18534.

The waterproofing layer required acc. to DIN 18534 should be matched to the basecoat. We recommend Knauf Sockel-Dicht.

Application temperature/climate

Do not apply with air, component and/or substrate temperatures below +5 °C and ensure that temperature does not fall below this temperature until the plaster has hardened sufficiently. Furthermore, the temperature should not exceed 30 °C during application.

In order to prevent rapid dehumidification of the fresh plaster by the exposure to direct sunshine (high surface temperatures), and/or strong wind (danger of cracks reduction in strength) suitable protection measures / treatment (e.g. protective nets, keeping moist) are required.

Cleaning

Clean the equipment and tools with water immediately after use.

Coatings

Finishing plasters

In favourable weather and drying conditions the application of further layers with Knauf top coats is undertaken after a drying time of 1 day per 1 mm plaster thickness. Substrate pretreatment will be required to suit the weather conditions and finishing plaster. With RP 240 in 2 mm thickness, a continuous closed surface must be produced or the basecoat must be covered with Sockel-SM, SM700 Pro, SM700 or SM300.

Note

Plaster must be applied according to EN 13914, DIN 18550 and DIN 18350, VOB part C as well as the generally recognized building engineering rules and valid guidelines.

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: For dry material feed: transfer hood, supply hose, pressure vessel, injection hood, feed manifold).

Heating in rooms should only be put into operation in stages. Rapid dehumidification, e.g. using dehumidifiers should be avoided.

Technical data

| Description | Standard | Unit | UP 310 |
|--|------------|--------------------|------------------|
| Reaction to fire | EN 13501-1 | Class | A1 |
| Graining | – | mm | 1.0 |
| Compressive strength | EN 1015-11 | Category | CS IV |
| Bond strength | EN 1015-12 | N/mm ² | ≥ 0.08 |
| Failure pattern | | – | A, B or C |
| Capillary water absorption | EN 1015-18 | Category | W _c 2 |
| Water vapour diffusion resistance μ | EN 1015-19 | – | ≤ 25 |
| Thermal conductivity $\lambda_{10, dry, mat}$ at P = 50 % P = 90 % | EN 1745 | W/(m·K) W/(m·K) | ≤ 0.82 ≤ 0.89 |

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

Material requirement and efficiency

| Coat thickness mm | Consumption approx. kg/m ² | Yield approx. m ² /bag | m ² /ton |
|----------------------|--|--------------------------------------|---------------------|
| 15.0 | 24.8 | 1.2 | 40.0 |

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 |
|-------------|-------------|----------|----------------|-----------------|---------------|
| UP 310 | 30 kg | 1.0 mm | 36 bags/pallet | 00009723 | 4003950000379 |

Sustainability and environment

| Short description | Unit | Value |
|--|------|--------------|
| VOC content acc. to RL2004/42/EC | % | Not relevant |
| VOC content acc. to RL2004/42/EC | g/l | Not relevant |
| Solvent-free and softener-free acc. to VdL-RL01 (Revision 4) | – | Not relevant |



Observe safety data sheet!

For safety data sheets and CE marking see
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