



TECHNICAL DATA SHEET

KEIM UNIVERSALPUTZ® STANDARD

LIME CEMENT HISTORIC MIX STUCCO/PLASTER

1. PRODUCT DESCRIPTION

KEIM Universalputz is a fiber reinforced restoration and new construction, thin layer wall plaster and stucco system, based on lime cement (standard render to DIN EN 998-1). The proprietary blend does not include organic or acrylic resins. KEIM Universalputz corresponds to mortar category CS III, P II acc. to DIN V 18550. Finish with KEIM silicate paints and stains, for optimal color and durability.

2. FIELD OF APPLICATION

For new interior and exterior substrates as well as renovation and repair of:

- Properly prepared and sound existing stucco and plaster, including historic. Portland and acrylic modified stucco
- Properly prepared and sound masonry, CMU, stone, and concrete surfaces
- Interior application over drywall, plaster or properly prepared masonry, CMU, stone, and concrete
- Use to repair non-structural cracks in existing stucco systems
- For use with metal lath
- Use in multi-layer applications with coats as thin as 3 mm (1/8 in)

3. PRODUCT PROPERTIES

KEIM Universalputz is based on a hydraulic lime and white cement composition together with mineral fibers and calcite fillers resulting in a cementitious coating for interior and exterior use that is water repellent.

- Mineral matte, off-white appearance
- Ideally finish with KEIM mineral silicate paint or stain for dynamic and non-fading color finish
- Incombustible and safe to use—Class A Building Material
- Extremely low VOC—environmentally friendly

Technical Data

Grain Size	0--1.3 cm
Bulk Weight	1.35 g/cm³
Compressive strength	> 3.5 - 7.5 N/mm², CS III
Flexural Strength ASTM C 348	635 psi
Surface Burning Characteristics ASTM E 84	Flame Spread: 0 Smoke Developed: 0
Water Vapor Transmission ASTM E96	17 perms, vapor permeable
Freeze Thaw Resistance ASTM E2485	Pass @ 60 cycles
Moisture Resistance ASTM D2247	Pass @ 28 days
Mildew Resistance ASTM D 3273	Pass @ 60 days
Accelerated Weathering ASTM G 153	Pass @ 5500 hours
VOC	< 10 g/liter

Color

White or finish with KEIM Mineral paints and stains

Environmental Compliance

EPA	YES
LEED	YES
CARB	YES
SCAQMD	YES
Green Seal Standard	YES

4. SURFACE PREPARATION

On masonry, stucco, and concrete, apply only to surfaces that are sound, clean, dry, and free of any residue or contamination which may affect the ability of Universalputz bond to the surface.

For previously painted masonry surfaces, all loose and chalking paint must be removed and sand or dull glossy paints.

Surfaces shall have sufficient porosity (ability to absorb water) or surface roughness to ensure an adequate bond for Universalputz.

Portland cement plaster must be clean, dry, and cured a minimum of 7–10 days and free of form release or bond breaking compounds. New concrete must be cured a minimum of 28 days.

On lath construction, apply only to lath installed in accordance with ASTM C1063. Proper Universalputz installation over lath requires waterproof barrier installed and flashed in accordance with building code and to form a waterproof surface.

For interior use, pretreat drywall as for painting.

Do not apply to substrates which are frozen or contain frost or ice.

For additional surface preparation options, contact KEIM Technical Support.

5. MIXING

Use clean equipment for mixing and preparation.

Water: Use clean water at a rate of approximately 1.5 gallons per 25kg sack of Universalputz (8 fl oz per kg).

Stir to obtain a homogenous mixture using a heavy-duty drill with a rust-free paddle at 400–500 rpm. Avoid air entrapment. Stucco mixing machines may also be used.

Do not over mix material. Overmixing can result in loss of strength. Mixed material which has set should never be remixed.

Keep container of mixed material closed when not in use.

Application Conditions:

Ambient and substrate temperature: 40°F and rising. Do not apply in direct sunlight or on sun-heated substrates as this may impact aesthetics. Protect new installations from direct sunlight, wind and rain during and after application for a minimum of 12 hours.

6. APPLICATION

Read the entire label and technical data sheet before application. Strongly absorbent substrates must be prewetted. Maintain a wet edge and work to corners, architectural breaks, or joints. Use a clean stainless-steel trowel and apply a uniform coat to desired thickness.

Apply in one or more layers to a thickness of at least 4 mm (1/8 in) and at most 10 mm (1/4 in) per layer.

Application Conditions: Ambient and surface temperature must not fall below 41°F during the application and drying phase. Do not apply in direct sunlight or onto sun-heated substrates. Protect surfaces from wind and rain during and after application.

Glass Mesh Reinforcement:

Apply plaster layer to minimum depth 4 mm (1/8 in) and maximum 10 mm (1/4 in). Embed glass fiber mesh into wet plaster and use stainless steel trowel to push mesh into plaster layer. Finish with sweeping motion to completely embed mesh. The mesh should not be visible and should be completely covered by wet plaster. Overlap mesh 4–6 inches. Allow the layer to dry 1-2 days before proceeding under normal drying conditions.

If using as a finish plaster, texture or float to desired texture and appearance. Total layer thickness min 6 mm.

Typical 3 Layer System: 12 mm (3/8 in) to 30 mm (3/4 inch)

1. First layer: Universalputz Standard applied to 4 mm (1/8 in) to 10 mm (1/4 in)
2. Second layer: Universalputz Standard applied to 4 mm (1/8 in) to 10 mm (1/4 in)—embed glass fiber mesh
3. Finish layer: Universalputz Standard or Fine applied to 4 mm (1/8 in) to 10 mm (1/4 in)—texture or float to desired finish.

To prepare the stucco system for painting with mineral paints, allow the entire system to dry for a minimum of 10 days. Pretreat entire surface with KEIM Lime Remover and Etchant to remove potential sinter layers and to mildly etch the surface to allow for maximum penetration of the mineral paint.

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Drying:

Drying and working times are temperature, humidity, and thickness dependent. Dry stucco layers 1 day per 4 mm (1/8 in) of thickness for each layer applied. To paint or coat a drying/setting time of 10 days is necessary after the final layer is installed.

Working Time:

Sets in 45 minutes—1 hour after mixing, depending on conditions.

Coverage*

25 kg bag covers approximately 50--60 sf at 3/8-inch thickness or 40--45 sf at 1/4 inch thickness.

Coverage values are for guidance only and depend on the nature of the substrate and the application method. Exact consumption values can only be determined by applying trials on the actual structure to be plastered.

Cleaning

Clean spills, containers, and tools with water immediately after use.

7. PACKAGING

25 kg sack, 36 sacks/pallet

8. HAZARDOUS SUBSTANCES ORDINANCE CLASS

Xi	Irritant
R 38	Irritating to the skin
R41	Risk of serious damage to the eyes
S 2	Keep out of reach of children
S 22	Do not breathe dust
S 24/25	Avoid contact with skin and eyes
S 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S37/39	Wear suitable gloves and eye/face protection

9. STORAGE

Approximately 12 months in original packaging under dry, frost-free conditions. Protect from moisture.

10. DISPOSAL

EC Waste Code No. 17 01 01 Any residues must be emptied out of sacks before recycling.

HAZARDOUS SUBSTANCE CLASS

n/a

11. LIMITATIONS

Do not apply over elastomeric or other flexible thick-finish paints or finishes.

12. SAFETY INSTRUCTIONS

In combination with water, lime and cement have an alkaline action. Provide appropriate protection for surfaces which are not to be treated, in particular glass, ceramics, natural stone, etc. Protect the eyes and skin from splashes. When using, do not eat or drink. Keep out of reach of children.

Product Code: ZP 1

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release those purchasing and applying our products from the duty of establishing for themselves, with due care, the suitability of our products for the intended application. Standard building industry practices must be complied with. We retain the right to make modifications to improve the products or their application. This edition supersedes all earlier editions.

The information and recommendations set forth in this Technical Data Sheet are based upon tests conducted by or on behalf of KEIM Mineral Coatings. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult <http://www.keim-usa.com/Technical-Data-Sheets> for the latest in product technical information.