



TECHNICAL DATA SHEET

KEIM POROSIL®-IP75

1. PRODUCT DESCRIPTION

KEIM Porosil-IP75 is a mineral ready-mixed dry mortar of insulation plaster class T1 in accordance with EN 998-1. This high-quality lightweight system plaster is characterized by its thermal insulation properties and excellent workability. The composition is based on a carefully balanced mixture of hydraulic, mineral binders, fractionated sands and exclusively mineral lightweight aggregates. Efficient working is ensured by the smoothness of the material and its excellent machinability.

2. FIELD OF APPLICATION

KEIM Porosil-IP75 is suitable for interior and exterior use as a lightweight, extremely low-stress, thermally insulating undercoat render on all standard, load-bearing substrates. Excellent for renovation and refurbishment, in the context of historic buildings and old buildings, to achieve thermal improvement. Seamless insulation layers can be produced that adapt to the complex geometric shapes of the substrate. The system is also suitable for leveling out large irregularities, as total thicknesses of up to 100 mm are possible. KEIM Porosil-IP75 insulating render is also suitable for substrates with low strength. The high decoupling effect of KEIM Porosil-IP75 significantly increases the system's protection against substrate-related plaster cracks. The render system can be used as additional insulation on highly insulating masonry, e.g. lightweight vertically perforated bricks, lightweight concrete or aerated concrete.

Not suitable for use as a top coat or in the lower ground or plinth area.

3. PRODUCT PROPERTIES

- for interior and exterior use
- with very good thermic values
- permeable
- fire behaviour: non-flammable (A1)
- purely mineral lightweight aggregates

MATERIAL CHARACTERISTICS:

- Bulk density: $\leq 0,30 \text{ kg/dm}^3$
- Fresh mortar bulk density: $\leq 0,70 \text{ kg/dm}^3$
- Maximum grain size: 2.0 mm

CLASSIFICATION:

- Water absorption class: W1
- Standard Water absorption: DIN EN 1015-18
- Thermal conductivity $\lambda_{10, \text{dry, mat}}$ for $P=90\%$: 0.075 W/(mK)
- Adhesive tensile strength: $\geq 0,08 \text{ N/mm}^2$
- Standard Adhesive tensile strength: DIN EN 1015-12
- Fracture pattern Adhesive tensile strength: A,B,C
- Classification according to: DIN EN 998-1
- Plaster type: T1

COLOUR SHADES:

grey

4. APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION:

The substrate must be strong, dry, clean, sound and free from adhesion-reducing residues. Separating substances, e.g. shuttering oil residues on concrete surfaces, must be removed by suitable means. Equalise strong unevenness with suitable material of the same type. For smooth surfaces with little grip (e.g. concrete), KEIM Uniputz 1.3 should be applied as a bonding bridge in a comb bed (at least 6 teeth horizontally oriented) in preparation. This plaster bonding bridge must be roughened with a coarse broom on the same day after sufficient hardening. Non-uniformly absorbent substrates (mixed masonry, porous bricks of higher strength, etc.) should be fully coated with a rough, wart-shaped spray coat of KEIM Porosan-Trass cement render. For highly absorbent substrates, it is recommended to apply the first layer using the "fresh in fresh" method.

APPLICATION CONDITIONS:

Air and substrate temperature during application and drying must be ≥ 5 °C and up to max. 80% rel. humidity. Only work in dry weather conditions. Do not apply in direct sunlight or on sun-heated substrates. Protect surfaces from rain after application. Be careful in case of night frost. KEIM Porosil-IP75 must be protected from drying out too quickly due to sun or wind, or kept moist if necessary.

PREPARATION OF MATERIAL / MIXING & CONVEYING:

Mix KEIM Porosil-IP75 with approx. 8.5 - 9.5 L of clean water per bag using a stirring paddle to a stiff-plastic consistency without lumps and allow to mature briefly. Never mix material that has already stiffened with water again.

KEIM Porosil-IP75 Thermal insulation plaster can be applied with all standard mixing pumps and plastering machines or by hand. Optimum machine equipment: Insulating plaster mixer, D7-2 auger casing, plate mixer and NW 35 mortar hoses. Do not select a spray nozzle that is too large, NW 14 is ideal, as otherwise the injection pressure will be too low.

CONSUMPTION:

approx. 2,90 kg/m² at a layer thickness of 10 mm.

These material consumption values are guide values for smooth substrates. Exact consumption values must be determined by means of test areas.

APPLICATION:

KEIM Porosil-IP75 Adjust thermal insulation plaster to consistency and spray on to the desired thickness, align and plumb.

Working method "fresh in fresh":

When using the "fresh in fresh" method, apply a layer of approx. 15 mm thickness per scaffold layer in the first work step. After application, this first layer should be worked with a notched trowel. As soon as the plaster surface changes from "glossy" to "matt" (usually after around 10 to 20 minutes, depending on the absorption behavior of the substrate and the weather conditions), the second layer of plaster is applied until a maximum total thickness of 40 mm is reached. The surface of this layer is aligned and plumb and roughened after sufficient setting. This procedure counts as one layer. It is recommended that plaster thicknesses over 40 mm are applied in 2 layers. If the substrate is normally absorbent, the first layer up to max. 40 mm can be applied in one coat. For highly absorbent substrates, the "fresh in fresh" method described above can be used to apply the first layer up to 40 mm. As soon as the first layer has set, the surface must be roughened well (e.g. with a coarse broom). The second layer should then be applied promptly, at the latest on the following day. With each new intermediate layer, ensure that the surface is thoroughly roughened (e.g. by tearing up the surface with a coarse broom). The final insulating plaster surface must be roughened with a mesh scraper and any unevenness/grits removed.

LAYERING SYSTEM:

Plaster thickness at least 20 mm per layer. Maximum total layer thickness \leq 100 mm.

The individual layers must not exceed a layer thickness of 40 mm. The "fresh in fresh" method up to 40 mm is considered one layer. A separate reinforcement layer between the insulating render and the finishing render considerably increases the protection against cracking.

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AFTERTREATMENT:

KEIM Porosil-IP75 must be protected from drying out too quickly due to sun or wind, or kept moist if necessary.

FINISHING:

A full-surface layer of reinforcing plaster should be applied before applying the finishing coat.

This separate layer of reinforcing plaster with fabric inlay considerably increases the protection against cracks.

The reinforcing plaster should be applied after the insulation plaster layers have had sufficient time to stand. For exterior areas, this reinforcement layer can be made of KEIM Reinforcement Compound-100 in 4 to 6 mm layer thickness. In interior areas, KEIM Mycal-Por can be used in a layer thickness of approx. 4 mm. In both cases, KEIM Glass fiber mesh mat 4x4 must be inserted in the upper third of the reinforcement layer. KEIM diagonal reinforcements should also be used in the corner areas of building openings.

Highly diffusible KEIM finishing renders such as KEM Brillantputz, KEM Stucasol, KEIM NHL-KP 0.6 or KEIM Romanit-KSP (interior only) and KEIM Mycal-Por (interior only) can be applied as a final render layer. Here, too, care must be taken to ensure that the previous layers of render are sufficiently durable.

Paints and coatings may only be applied after the render has completely dried out.

Due to their excellent physical properties, all KEIM paint qualities are generally suitable for the final coat.

SETTING TIME:

A minimum service life of 2 days per cm of insulation plaster thickness applies. In damp ambient conditions and/or damp substrates, the service life must be extended to at least 4 weeks.

CLEANING OF TOOLS:

Clean tools, machines and mixers immediately after use with water. In hardened state only a mechanical removal is possible.

5. PACKAGING

Container content	Unit of measure	Quantity on pallet	Type of container
10	kg	30	bag

6. STORAGE

max. storage time	Storage conditions
6 months	protect from moisture

7. DISPOSAL

Waste code: 17 01 01

8. SAFETY INSTRUCTIONS

Please, refer to the Material Safety Data Sheet.

GISCODE:

9. GENERAL INFORMATION

Cover surfaces not to be treated, especially glass, ceramics and natural stone. Any splashes on surrounding surfaces or traffic areas must be rinsed off immediately with plenty of water.

Mixing with products not part of the system or other foreign additives is not permitted.

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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 the purchaser and processor from the obligation to convince themselves of the suitability of our products for the intended application with due care, which is general practice in trade and crafts. The general rules of construction technology must be observed. We reserve the right to make modifications to improve the product or its application. This edition supersedes all earlier editions.



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