



KEMASAN 550 M

Machine restoration plaster

- ▶ Diffusion open
- ▶ For indoor and outdoor application
- ▶ For machine application (for example machine PFT G4 with conventional rotor-stator D4, without any additional equipment)
- ▶ Resistant to moisture, weather and salt



PRODUCT DESCRIPTION Lime-cement based drying plaster based, specially designed for machine application, class R.

FIELD OF USE Suitable where the plaster has to be replaced, because it is damaged by capillary moisture or damaged by short-term humidity during floods, water spills or similar. Due to fine grain size (up to 1,4 mm), it is also suitable for finishing plaster. Suitable for indoor and outdoor surfaces. The product can be mixed with machine PFG G4 without any additional equipment.

- PRODUCT PROPERTIES**
- Diffusion open
 - For indoor and outdoor application
 - For machine application (for example machine PFT G4 with conventional rotor-stator D4, without any additional equipment)
 - Resistant to moisture, weather and salt

PRODUCT DATA

BASIC INFORMATION

Appearance	Grey powder mixture
Packing	25 kg in bag (plastificated) / 1200 kg (48 x 25 kg) on pallet
Storage and expiration date	12 months from date of production if stored properly in undamaged original sealed packaging in dry and cool conditions. Date of production is printed on packaging.

TECHNICAL DATA

Type of product	Lime - cement based mortar	
Class	R	EN 998-1:2010
Bulk density of powder	1,37 kg/dm ³	EN 1015-1:1999
Grain size	D _{max} : 1,4 mm	EN 1015-1:1999
Layer thickness	2-5 cm	
pH (at 20°C)	11-13,5	
Bond strength	>= 0,2 N/mm ² - MP: A	EN 1015-12
Compressive strength	CS II (1,5 do 5 N/mm ²)	EN 1015-11
Water vapour permeability coefficient (μ)	μ < 15	EN 1015-19
Capillary water absorption due to capillary action	>= 0,3 kg.m-2/24h	EN 1015-18
Thermal value	0,47W/mK (P=50 %); 0,54 W/mK (P=90 %)	EN 1745, Tab. A.12
Reaction on fire (class)	A1	
Sustainability (freezing and thawing cycles)	Persistent after 10 cycles	
Depth of capillary moisture penetration	< = 5 mm	

INSTRUCTIONS FOR USE

CONSUMPTION 25 kg/m² for a layer thickness of 2 cm

BASE KEMASAN 550 M drying plaster adheres to any base surface (concrete, brick wall, stone walls or concrete block walls, ...). The substrate has to be clean and free from grease stains or deviating colors. The surface can also be porous.

BASE	The old plaster, coatings and layers of other materials have to be completely removed up to the prescribed height.
PREPARATION	<p>The mortar in joints, which is usually full of salt, has to be scraped up to the depth of 1-2 cm. Finally all the residues of mortar are removed by a wire-brush. Dusty particles are removed with compressed air. Waste plaster has to be transported away from the structure in order to prevent oozing of water-soluble salts back to the wall due to capillary forces. DECIDING UPON THE HEIGHT UP TO WHICH THE KEMASAN 550 M DRYING PLASTER SHOULD BE BUILT-IN</p> <p>The height up to which the KEMASAN 550 M drying plaster should be built-in depends on the wall thickness and the degree of humidity. It can easily be calculated in such a way that approximately 0.7 m (the thickness of the wall multiplied by 1 – 1.5) is added to the visible humidity level on the existing plaster.</p>
MIX RATIO	Recommended water flow on the machine for the application (PFT G4 or similar) is approx.: 400 l/h. Water consumption has to be adapted to the machine and the desired creamy consistency.
MIX TIME	KEMASAN 550 M drying plaster is a ready made mixture to which exclusively water may be added during the preparation.
MIX TOOL	KEMASAN 550 M is designed for machine installation with mixing pumps (for example, PFT G4 with conventional rotor-stator D4 and conventional mixing spindle) without the need for special accessories (for example without secondary mixer ROTOQUIRL and special rotor-stator D8).
INSTALLATION	<ol style="list-style-type: none"> 1) The surface to be plastered has to be intensely moistened with water about half an hour before plastering. 2) Long-term experiences have shown, that the binding spraying can be omitted and that the first layer of the plaster KEMASAN 550 M, approx. 2 cm thick, can be directly plastered on the moistened wall in caterpillar rows, which is roughly cut, using H-profile strip or flattened. In the case that spraying is nevertheless performed, it may be prepared exclusively from the KEMASAN 550 M drying plaster. Eventual holes in the wall are filled-in with brick or stone morsels, using KEMASAN 550 M drying plaster as the binding media – this time used as mortar. 3) During the following days the first layer of the plaster is intensely re-moistened and than KEMASAN 550 M drying plaster is plastered on it again, up to the desired total thickness of the plaster. If thicker plaster is required - above 3 cm, a galvanized mesh should be installed in the middle of the plaster thickness. The thickness of a layer is regulated by previously prepared lathing or plastering leaders made of KEMASAN 550 M drying plaster. The last layer of KEMASAN 550 M drying plaster is leveled by a screed board from the bottom upwards. Lathing is then removed and the resulting grooves are filled-in with KEMASAN 550 M drying plaster before the last layer of plaster hardens. 4) According to the required appearance of the surface, the final layer of KEMASAN 550 M plaster in the process of hardening, can be formed with a wooden or plastic trowel to a smooth surface. 5) During the application of KEMASAN 550 M of individual layers interruptions may occur, but before proceeding, previous layer has to be well moistened. 6) After three weeks the drying plaster KEMASAN 550 M may be painted with a facade paint. Using a facade paint which has at least the same or even higher vapor-permeability as KEMASAN 550 M drying plaster is very important. The required vapor-permeability is achieved by silicate or silicone mineral paints, lime whitewash and similar.
TOOL	For spraying and application of plaster a machine like PFT G4 is suitable. For final layer is wooden or plastic finishing trowel suitable.
CLEANING OF TOOL	Clean tools immediately after the use before adhesive hardens. Hardened material on tools can only be removed mechanically.

LIMITATIONS

BASE TEMPERATURE +5°C min./ +30°C max.

AIR TEMPERATURE +5°C min./ +30°C max.

MATERIAL TEMPERATURE +5°C min./ +30°C max.

- WARNINGS**
- When plastering facade surfaces, direct sunshine, rain, strong wind or fog are to be avoided. KEMASAN 550 M drying plaster has to be cured in the same manner as other facade surfaces against unfavorable weather conditions (most frequently classical protective curtains are used).
 - Stopping between particular layers of KEMASAN 550 M drying plaster is possible, but the last laid plaster layers have to be well moistened before continuing the work.
 - Lime or other chemical additives must never be added to the plaster. The plaster is mixed to appropriate consistency for plastering. It must not be stirred for too long, as too many air pores create that cause the strength to decrease. For the same reason, it is not allowed to subsequently stir the plaster after it has been already stirred.
 - During plastering and binding the air and surface temperature must not drop below + 5°C. Protect freshly installed material from freezing, rain and other weather conditions. The material should not be used at (surface, air, material) temperatures lower than +5°C.
 - In order to prevent the plaster from drying too quickly while binding, the direct sunshine has to be avoided as well as strong wind. The facade surface has to be protected with protection curtains or sprinkled with water. As well the surface has to be protected from rain while binding.
 - Times specified in the technical sheets were measured at the temperature of +23°C and relative air humidity of 50 %. Higher temperatures reduce, while lower temperatures prolong those times.
 - KEMASAN 550 M drying plaster can not be considered as hydroinsulation and should not be used for walls exposed to water under pressure or trickling water. In cellars with high air humidity sufficient ventilation has to be provided for optimal effectiveness of KEMASAN 550 M drying plaster.

Recommendation: Remains of unhardened/unset material had to be removed in accordance with the legislation.

Data source: All technical data in this technical sheet was obtained by laboratory research. Actual data may differ due to different working conditions.

Local restrictions: Due to specific local regulations the installed product can differ from country to country. For exact instructions for use a country specific technical sheet should be obtained.

PROOFS

NORMS/ STANDARDS In accordance with European standards 998-1:2010

SAFETY DATA

Irritating. Contains lime. Irritating to eyes, skin and respiratory tract. In case of eye contact wash thoroughly with water at once and consult a doctor. In case of skin contact flood with a lot of water. Keep away from the reach of children. More data on storage, handling and use of mixture can be found in the safety sheet which contains safety, toxicological and ecological data. Warnings on the original packaging should also be considered.

LEGAL BASE

Information and recommendations related to use of KEMA products are presented in good faith and believed to be correct. The later is based on our knowledge and experience with the products. Information is supplied upon the condition that products are stored and used according to the recommendations and the persons receiving the same will make their own determination as to its suitability for their purposes prior to use. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to Information or the product to which information refers. In no event will KEMA be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information or the product to which Information refers. Nothing contained herein is to be construed as a recommendation to the use any product, process, equipment or formulation in conflict with any patent, and KEMA makes no representation or warranty, expressed or implied that the use thereof will not infringe any patent. All orders fall under current sales and supply conditions. The user should always check the latest technical sheet available upon demand.