



# KEMASAN 550

## Restoration plaster

- ▶ Conforms to the requirements for R plasters, in accordance with the standard EN 998-1:2004
- ▶ Minimum and one-time layer 2 cm
- ▶ For indoor and outdoor use
- ▶ Render and final drying plaster all-in-one
- ▶ For manual application



**PRODUCT DESCRIPTION** Lime-cement restoration plaster with high content of special diffusion-open micro-pores.

**FIELD OF USE** For restoration of plasters damaged by capillary moisture and for protection of new constructions in areas exposed to moisture and salt. Internal and external plaster, cellar plaster, plaster on cellar vaults. For all types of walls (brick, stone, concrete). Due to fine grain sizes (up to 1 mm) it is also suitable for fine repair plaster. Not suitable for restoration of water ingress.

- PRODUCT PROPERTIES**
- Conforms to the requirements for R plasters, in accordance with the standard EN 998-1:2004
  - Minimum and one-time layer 2 cm
  - For indoor and outdoor use
  - Render and final drying plaster all-in-one
  - For manual application

PRODUCT DATA			
BASIC INFORMATION	<b>Appearance</b>	Grey powder	
	<b>Packing</b>	25 kg in bag (plastificated) / 1200 kg (48 x 25 kg) on pallet	
	<b>Storage and expiration date</b>	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	<b>Type of product</b>	Lime-cement mortar	
	<b>Bulk density of powder</b>	1,33 kg/l	EN 1015-2:1999/A1:2007
	<b>Weight of fresh mortar</b>	1,38 kg/l	EN 1015-2:1999/A1:2007
	<b>Grain size</b>	$D_{max}$ : 1 mm	EN 1015-1:1999/A1:2007
	<b>Layer thickness</b>	2 cm	
	<b>Contents of air pores in fresh mortar</b>	30 vol.%	
	<b>Diffusion resistance coefficient for water vapour u</b>	< = 15	EN 1015-19:1999/A1:2004
	<b>Sd coefficient at the plaster thickness of 2 cm</b>	< = 0,3 m	
	<b>Water-permeability coefficient w</b>	W1	EN 1015-18:2004
	<b>pH (at 20°C)</b>	12,45	
	<b>Water vapour permeability coefficient (<math>\mu</math>)</b>	11,8	EN 1015-19:2001
	<b>Value Sd (m)</b>	0,24 (minimum layer thickness d=3 mm)	EN 1015-19:2001
	<b>Flexural strength after 28 days</b>	1,0 MPa	EN 1015-11:2001/A1:2007
	<b>Compressive strength after 28 days</b>	3,5 MPa	EN 1015-11:2001/A1:2007

## INSTRUCTIONS FOR USE

25 kg/m<sup>2</sup> for a layer thickness of 2 cm

**BASE** Kemas 550 restoration plaster binds with any carrying surface (concrete, brick, stone or concrete brick walls etc.).

**BASE PREPARATION** The old plaster, coatings and other layers must be completely removed. The plaster from joints that is usually full of salts must be scratched out 1 cm deep. Plaster residue are to be removed with a wire brush until clean. The dust particles are removed by blowing.  
Waste plaster must be removed from the object in order to prevent water soluble salts to leak back into the wall by capillary forces.  
The surface has to be moistened as Kemas 550 does not bind to dry surface.

**MIX RATIO** Approx. 11,0 l per 2 bags (50 kg) of dry mixture

**MIX TIME** Kemas 550 is ready made mixture to which exclusively water may be added during the preparation. The ratio of the mixture is 25 kg of dry mixture Kemas 550 per ~ 5,5 l of water. When using the V 80 l mixer, the best results are obtained when 2 sacks of Kemas 550 are mixed with approx. 11 l of water. Add 90% of the mixing water to the mixer and add two bags of dry mixture and stir about ca. 2 minutes. After this time, the mortar must pass into a soft, creamy consistency. If this does not happen, add the remaining 10% of the mixing water if and mix the mortar to the total time of 10 minutes.  
Exceptionally, an electric mixer (with attachment for mixing mortars) can also be used for mixing. Pour into the bucket ca. 5,5 liters of water, add 25 kg of dry mixture and stir at low turns for 3 minutes until a slight, creamy consistency is formed.

**MIX TOOL** Regular construction mixer. Exceptionally, an electric mixer (with attachment for mixing mortar) for mixing mortars can be used.

**INSTALLATION** The surface to be plastered has to be intensely moistened with water about half an hour before plastering. Apply Kemas 550 directly onto a moistened wall and this way fill in joints, damage, and cracks. The plastering is applied only partly covering. After at least 12 hours of drying the surface is intensely moistened again and plastered with maximum 2 cm thick layer of plaster at a time. The maximum layer thickness must not be exceeded. To assure the functioning of Kemas 550 plaster, it has to be at least 2 cm thick. All additional layers of plaster are applying in layers with 1 cm thickness. The final layer can be finished with wooden or plastic finishing trowel in one or two days on good moisture surface. After three weeks the restoration plaster Kemas 550 may be painted with facade paint. Using a facade paint which has at least the same or higher vapour-permeability as Kemas 550 is very important. The required vapour-permeability is achieved by silicate or silicone mineral colours, lime whitewash, and similar.

**TOOL** For plastering is trowel suitable.  
For multiple layers is notched trowel 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**
- 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.
  - The surface has to be intensely moistened with water before plastering. As well every individual layer of plaster has to be moistened before further plastering.
  - During plastering and binding the air and surface temperature must not drop below 0°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.
  - The Kemas 550 restoration plaster is not a hydro isolation and must not be used in places where pressurised or leaking water is present.
  - In cellars, where air moisture is high, sufficient ventilation must be assured for optimal functioning of the Kemas 550 restoration plaster.
  - Times specified in the technical sheet were measured at the temperature of +23°C and relative air humidity of 50 %. Higher temperatures reduce, while lower temperatures prolong those times.

**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 998-1:2004



## SAFETY DATA

Irritating. Contains cement and 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.