



# HASIT HASOLAN®

Lime mortar

**Areas of application:** Multi-layer, hydraulic lime plaster system for historic and new masonry from ground level, indoors and outdoors.  
 Purely cement-free lime plasters with natural hydraulic limes, hydrated limes and pozzolan for use on monuments, among other things, for professionals and enthusiasts.  
 Suitable for fresco works or as grouting mortar for the closing of cracks and breakouts, especially in historic masonry.  
 As a special machine-applied plaster for subsequent lime-based plaster.  
 HASIT HASOLAN® is a permeable lime plaster system that can be hydrophobic or non-hydrophobic.  
 The articles 2000020944, 2000006456, 2000006458 and 2000006709 are hydrophobic (water-repellent).

- Properties:**
- For use on listed buildings due to its pure mineral, cement-free and hydraulic composition
  - Natural hydraulic lime, hydrated lime and pozzolan for outdoor use and humid areas
  - Available in hydrophobic (water-repellent) and non-hydrophobic versions
  - Vapour permeable
  - Can be processed manually and mechanically
  - Regulates the indoor climate through its binding agent, supports the decomposition of organic impurities, odours and nitrogen oxides in the ambient air
  - Natural biocidal effect through lime, therefore recommended by building biologists
  - HASIT HASOLAN® is a cement-free hydraulically setting lime plaster system that can be used in a wide range of grain sizes from 0.5 mm to 6 mm in a variety of applications from machine-applied plasters to fine plaster mortars.
  - Shrinkage cracks are unavoidable in cement-free lime plaster systems and do not constitute a technical defect if there are no cavities.

**Application procedure:**



Technical data					
Item no.	2000006453	2000006454	2000095369	2000006455	2000006706
EAN	4038502100696	4038502102751	4038502147783	4038502102799	4038502146892
Customs Tariff No.	32149000				
Packaging type					
Quantity per unit	20 kg/unit	30 kg/unit	1,000 kg/unit	30 kg/unit	1,000 kg/unit
Unit per pallet	42 unit/Pal.	42 unit/Pal.		42 unit/Pal.	
Colour	Natural white				
Granulation	0 - 0.5 mm	0 - 1 mm	0 - 1 mm	0 - 2 mm	0 - 2 mm
Yield per litre	17 l/bag	18 l/bag	600 l/t	18 l/bag	600 l/t
Consumption	approx. 1.5 kg/m <sup>2</sup> /mm				
Consumption instructions	The consumption figures are based on experience, but may vary depending on the nature of the substrate and the type of application.				
Amount of water required	approx. 4.8 l/bag				
Max. application density	1.5 mm	3 mm	3 mm	6 mm	6 mm
Dry density	approx. 1,800 kg/m <sup>3</sup>				
Water vapour diffusion μ	12 - 15				
Thermal conductivity λ10,dry	0.82 W/mK (Table value) for P=50%				
Thermal conductivity λ10,dry	0.89 W/mK (Table value) for P=90%				
Compressive strength (90 d)	≤ 3 N/mm <sup>2</sup>				



# HASIT HASOLAN®

Lime mortar

Item no.	2000006457	2000099311	2000006459
EAN	4038502102836	4038502159496	4038502102867
Customs Tariff No.	32149000		
Packaging type			
Quantity per unit	30 kg/unit	1,000 kg/unit	30 kg/unit
Unit per pallet	42 unit/Pal.		42 unit/Pal.
Colour	Natural white		
Granulation	0 - 4 mm	0 - 4 mm	0 - 6 mm
Yield per litre	16.5 l/bag	550 l/t	16 l/bag
Consumption	approx. 1.5 kg/m <sup>2</sup> /mm		
Consumption instructions	The consumption figures are based on experience, but may vary depending on the nature of the substrate and the type of application.		
Amount of water required	approx. 4.8 l/bag		
Max. application density	12 mm	12 mm	18 mm
Dry density	approx. 1,800 kg/m <sup>3</sup>		
Water vapour diffusion $\mu$	12 - 15		
Thermal conductivity $\lambda_{10, dry}$	0.82 W/mK (Table value) for P=50%		
Thermal conductivity $\lambda_{10, dry}$	0.89 W/mK (Table value) for P=90%		
Compressive strength (90 d)	$\leq 3$ N/mm <sup>2</sup>		

**Material base:**

- Mineral product
- Natural hydraulic LIME, NHL 5 according to EN 459-1
- Air hardening lime according to EN 459-1
- Puzzolane
- Quarry sand, washed and selected

**Application conditions:**

Do not use with air or object temperatures below +8 °C and relative humidity above 70 %. During applying and setting process provide frost protection (min. 7 days).

**Surface pre-treatment:**

The substrate test must be carried out according to DIN 18350. The substrate to be plastered must be mineral, frost-free, absorbent and dust-free, free of release agents and other impurities. In historic buildings and old buildings, the as-is-state (moisture load, salt load, masonry type and condition) of the masonry must be known. Impurities, moss and algae must be removed. In the case of salt load, the substrate must be prepared according to the WTA data sheet 2-2-91. Non-load bearing, hollow and salt-affected old plaster must be removed. If presumably salt-affected areas of the masonry are plastered over, the joints in these areas must be scraped out to a depth of approx. 2 to 3 cm and damaged bricks must be removed. The chipped off material must be immediately removed and deposited out of the way. Defects in plaster, joints and damaged stones must be replaced with material of the same type. Major irregularities and deep joints must be closed or levelled with HASIT HASOLAN® 6 mm grain and then dried. As a bonding bridge and standardisation of the absorption behaviour in the substrate, a full-covering machine-applied plaster with HASIT HASOLAN® 6 mm grain size must be applied. The adhesion of the machine-applied plaster must be checked. To ensure that the plaster substrate can be properly wetted, it is recommended to treat the surfaces to be plastered in advance with HASIT ALUMINA SOLUTION. Dry substrates must be pre-wetted before each plaster application, puddle formation and overwatering must be avoided.



# HASIT HASOLAN®

## Lime mortar

<b>Preparation:</b>	<p>HASOLAN® can be used as a manually or machine-applied plaster. Mixing is carried out using gravity mixer, continuous or compulsory mixer, motor stirrer or suitable plastering machines. Piston pumps have proven to be effective for the mechanical processing of coarse-grained qualities. The maximum application thickness per plaster layer depends on the grain size and must not exceed the values in table 1. The service life of individual plaster layers must be strictly observed depending on the plaster thickness and type. With favourable weather conditions they are:</p> <p>As pre-spray mortar at least 3 d, as plaster in the hydrophobic version at least 1 d per mm plaster thickness and as plaster in the non-hydrophobic version at least 12 h per mm plaster thickness. The plaster structure goes from coarser grain to finer grain.</p> <p>After application and start of the hardening process, HASOLAN® should be roughened with a wooden slat or brayed with a wooden float as the last layer. Any sintered layers must be completely removed to improve the drying behaviour and subsequent plaster adhesion.</p>
<b>Please note:</b>	<p>The 0,5 mm grain material is only suitable for indoor use.</p> <p>The spiral casing of the plastering machine must be selected according to the largest grain size of the material.</p> <p>Lime mortar systems only prove to be permanently surface-stable in masonry areas without salt and moisture loads. The water-repellent finish of the hydrophobic HASOLAN® lime mortars reduces the characteristic capillary conductivity and increases the salt resistance, since the evaporation area lies now within the plaster cross-section. However, attacks on the stability of water-repellent substances due to subsurface salt exposure cannot be ruled out.</p> <p>The causes of moisture must be eliminated in advance with suitable structural and sealing measures. Lime mortars can only develop their positive properties with unhindered diffusion and access of air. In interior areas, suitable measures must be taken to ensure adequate ventilation, particularly during the drying/hardening of the plaster. No rapid heating-up in order to avoid cracking. Fresh lime mortars require post-treatment by moistening and possibly shading in dry weather, wind and sunlight. When fresh, they must be protected from frost and precipitation. Plaster layers must be carried out in uniform thicknesses, large irregularities and cavities in the masonry must be levelled out in separate work steps.</p> <p>The minimum thickness of plaster systems in outdoor areas is 20 mm. Outdoor areas that are particularly exposed to weather conditions and are subject to stress should, if possible, be plastered with hydrophobic HASOLAN® lime mortar. Plain plaster structures using fine plaster mortars are not recommended for outdoor use due to their tendency to form hairline cracks. Do not use HASOLAN® lime mortar in areas in contact with the ground. Do not plaster directly down to the ground when there are compact coated surfaces in the outdoor area, attach instead an approx. 5 cm high wooden lath on the ground and remove it after the plastering work. Then plaster and seal this area with suitable material.</p> <p>If wooden components and other critical substrates are to be plastered, special coordinated measures (e.g. plaster bases made of wire mesh and fabric inlay) are necessary.</p> <p>With different plaster substrates, colour differences in the finishing plaster can occur due to the different absorbencies, particularly in damp weather.</p> <p>HASIT lime paints and other permeable, single-component mineral paints. The coating may only be applied when the plaster has completely dried.</p> <p>The maximum application thickness is specified for each plaster layer.</p> <p>The maximum layer thickness for machine-applied plaster is 8 mm for article 2000006459</p>
<b>Quality assurance:</b>	<p>The product is continuously monitored in a laboratory and is certified by the Bayerischer Baustoffüberwachungs- and Zertifizierungsverein - BAYBÜV - e.V.</p>
<b>Packaging:</b>	<p>In recyclable paper bags.</p>
<b>Storage:</b>	<p>Store in a dry place on wooden pallets.</p> <p>Not later than 12 months after the date of manufacture. Storage time indications refer to the date of manufacture and are only valid if the product has been stored and transported properly.</p>
<b>Hazard statements:</b>	<p>Please refer to our separate safety data sheets for detailed safety instructions. Read through these before use.</p>



# HASIT HASOLAN®

Lime mortar

---

## Certificates:



---

## General information:

This technical data sheet substitutes and annuls the previous editions of the same. Time-based values refer to standardised climatic conditions (+20 °C/65 % relative humidity). These can vary due to environmental factors, such as temperature, moisture and type of substrate.

The data is processed carefully and conscientiously, however they do not provide a warranty for the accuracy and completeness of the same, nor are they responsible for future decisions of users. These data itself is not based on legal relations or other additional obligations. These data do not release the customer from the obligation to check whether the product is suitable for its intended purpose.

Our products, as well as all raw materials contained in them, are subject to continuous monitoring in order to guarantee consistent quality.

If you have further questions, please contact your sales advisor or specialist retailer. The current status of our technical bulletins can be found on our website or can be requested in the responsible office.

The manufacturer's processing guidelines must be observed for all plaster bases and special building materials.