NS67
RASOTHERM®

NS67 NATURAL LIME

Lime-based Heat-reflecting plaster. Biocompatible product, ideal for energy saving in buildings

COMPOSITION

Special formula of fibre-reinforced hydraulic plaster

MAIN CHARACTERISTICS

Biocompatible product, ideal for energy saving in buildings

12 Kg

IDEAL FOR

NS67 RASOTHERM NATURAL LIME is an eco-compatible natural mortar **also studied for the conservative restoration and energy requalification of protected historic buildings**.
Special formula of fiber-reinforced hydraulic plaster, based on: natural hydraulic lime NHL 3.5 (certified EN 459-1 - building limes), CL 90-S natural lime flower (certified EN 459-1 - building limes), micronized cocciopesto "Doc" (certified EN 197 - pozzolanic reactivity), micronized pozzolan (certified EN 197 - pozzolanic reactivity), expanded glass sand (certified EN 13055 - lightweight inert material for mortars), glass microspheres, cellular glass, micro-reflectors, lightweight aggregates and natural binders.

PROPERTIES AND BENEFIT

NS67 RASOTHERM NATURAL LIME is a special mixture of highly insulating and heat reflective materials, for external and internal surfaces. Its formulation based on glass microspheres, micro-reflectors and cocciopesto, **allows to create a large presence of air cell structures, with high insulation and reflective power, allowing surface breathability**. This air incorporated into the mix increase its insulating power. Mechanical resistance is improved by using advanced materials such as cellulose fiber. The mixture reflects the thermal radiation, increasing the thermal resistance value. Thicknesses for energy efficiency from 6 to 35 mm for insulating finishes (e.g., thermal coat), 6 mm to reduce thermal bridges in proximity of pillars, beams or other construction situations; a minimum thickness of 8/12 mm is recommended. Ideal to decrease humidity condensation problems.

USE AND SURFACE PREPARATION

The application must be performed on well aggregated substrates, the TOTAL REMOVAL OF THE SURFACE FINISHING LAYER (paint, intonachino, plastic coating, etc.) and/or the vitrification of any removed materials is necessary, the presence of which precludes and/or limits the correct and durable anchoring to the support for subsequent cycles, USING A MILLING/SCARIFYING MACHINE FOR WALLS AND FACADES.

Pre-arrange the damaged substrate and apply NS67 CMIX primer consolidante. **A 12 kg bag of NS67 RASOTHERM NATURAL LIME requires about 5.4 litres of water**.

To achieve a lump-free and homogeneous mixture, mixing mechanically by a mixer, adding 2/3 of the water at the beginning and the rest after a few minutes of mixing until reaching the desired fluid consistency.

Allow the mixture to rest 10 minutes. In small quantities, the product can be mixed also by hand. In both internal and external applications, it is necessary to insert a 160 gr 4x4 fiberglass reinforcement mesh in the last 6 mm. For internal applications, the minimum thickness is 6 mm. **The plaster can be applied by hand or by a continuous plastering pump for light plasters**, with Stator D7 or D8 (highly dependent on the type of plastering machine).
Level using a straightedge and leave the rough surface for the grip of the following layers. Allow the applied layer to dry and then apply wet on wet. Do not exceed the thickness of a single base layer of 25 mm, which must always and in any case be finished with a 7/8 mm layer of reinforced finishing plaster, possibly sanded with a steel trowel 80/100 cm in size. For internal application, the minimum thickness is 6 mm.
Apply the first layer with a toothed steel trowel (1 cm toothing or more, according to the final desired thickness), superficially fix the mesh reinforcement, then proceed with a straight blade second application to fill and join the mesh with the previous layer and to get a smooth finish-surface; at the beginning of consolidation, but always wet on wet, apply a further finishing coat of at least 2/3 mm. If a paint finish is desired, brush the applied product with a sponge tool before it is completely dry. Maturation time: 7/10 days in favourable environmental conditions and depending on the thickness. **Constant hydration of the plaster layers is recommended after the first application with high summer temperatures, to avoid cracking.**

APPLICATION

sAlways consult the technical report before use. Professional use only. The surface must be treated as described above. Edges and contours must always be protected with edge protectors and straps. For applications at hot temperatures, i.e. summer time, surface must be always damp. Always avoid using additional substances if no instructions are issued, and always stick to the dose recommended. Do not apply in direct sunlight or windy conditions, to prevent a rapid drying. In summertime, it is essential to maintain its moisture for at least 2/3 days after application.
APPLICATION NOTE Application temperature must be between 5-30 °C; always protect from strong climate changes. The user needs to be aware of construction site problems and of laying lime-based products traditional techniques - Always test a small area to confirm suitability and desired results before starting overall application. Several common challenges can arise in each construction site; Always consult our internal technicians (+39 0425.070232) to evaluate the most suitable products and solutions.
Always consult the complete safety data sheets before use. The use of materials not listed in the NS67 RASOTHERM cycle will void the product warranty. The NS67 RASOTHERM cycle must be exclusively completed either with NANOSILV paints or with ACRYLSIL plaster to achieve the certified energy performance. Any different finish will affect the performance result of the heat-reflecting plaster.

STORAGE

12 months in its unopened and undamaged original sealed packaging. Final performance of the material can be adversely affected by a more long-term storage; always check the data, before use. The product must be stored in a dry and humidity-free environment.

TECHNICAL DATA	
Mixing water	44% ca
Certification UNI EN 1934:2000	R = 0,8 m² K/W ogni 6 mm
Painting cycle NS67 RASOTHERM® Certification – Insurable	R = 0,8 m² K/W
Power density	ca. 0,600 kg/m³
Consumption	ca. 0,600 kg/m² x 1 mm thick
Basic binder	Calce NHL 3,5
Grain size	0 ÷ 0,5 mm
Cycle thickness	6 mm
Thermal Outside/Inside with mesh finishing system	6 mm
28 days' compressive strength	> 5 N/mm²
Steam resistance	μ < 8
Compliance	UNI EN 998-1
Packaging	12 kg

The correct application of the product is the sole responsibility of the user. Any visits or site inspections by Nanosilv staff are intended to provide technical application recommendations, but in no case to inspect the construction site or perform quality checks on behalf of Nanosilv srl.

PRECAUTIONARY STATEMENTS - CLP Article 45: UFI CODE AKK9-701V-P00G-D5Y5
Keep out of reach of children. Do not reuse container. Avoid contact with skin and eyes. In case of skin contact, wash off with soap and plenty of water. Never use solvents or thinners. In case of eye contact, rinse thoroughly with plenty of water, seek medical assistance. If swallowed, seek immediate medical assistance and show container or label to the doctor in attendance. Do not let product enter drains. Dispose of containers contaminated by the product in accordance with local or national legal provisions. Before use, read and understand the Safety Data Sheet.

LIMITED WARRANTY INFORMATION - Please read carefully.
The information contained herein is true and correct to the best of Nanosilv's knowledge. Final determination of the suitability of the material, in relation to the specific use of the product, is the sole responsibility of the user. Nothing herein should be interpreted as a warranty. Since conditions and methods of use of our products are beyond our control, observing applicable law or regulation is the sole responsibility of the user. Nanosilv disclaims liability for any incidental or consequential damages. This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

ITEM SPECIFICATIONS

Nanostructured lime-based heat-reflecting plaster for exterior or interior, biocompatible, also suitable for the restoration of historic buildings. The fibre-reinforced heat-reflecting plaster must contain: natural hydraulic lime NHL 3.5 (EN 459-1), cocciopesto and micronized pozzolana, lightweight expanded glass aggregates with maximum grain size 0.5 mm (EN 13055-1), powder mass approx. 0.600 kg/m³, consumption approx. 0.60 kg/m² x 1 mm thickness.
Compressive strength: CSII performance, vapour resistance 5 < μ < 20, fire reaction Class A1, EN 998- 1:2010 values.
The plaster will be reinforced with 4x4 mm fibreglass mesh. of approximately 160 gr/m², PVC corner guards with 10 cm mesh, after applying primer to be compensated separately and subsequent finishing with external or internal painting to be compensated separately. The combination of the filler and the painting will constitute a "Composite system kit/artifact", certified UNI EN 1934:2000 and CAM. The filler varies from a minimum thickness of 6 mm up to 35 mm.

LIME-BASED APPLICATION CYCLE NS67 RASOTHERM NATURAL LIME PRODUCT KIT

WALL CLEANING and PREPARATION:
1- Sp1- Spray anti-mold type NS67 MUFFA and leave to act for 24 hours and then rinse (yield 8/10 m²/L)
2- Spray Primer type NS67 CMIX Primer diluted 1:6 to consolidate and leave to dry for 4 hours (diluted yield 8/10 m²/L)

PLASTERING:
1- Spread a base coat of skim coat type NS67 NATURAL LIME to create the bond. Allow to dry.
Spread skim coat type NS67 NATURAL LIME by hand or with a plastering machine (for greater thicknesses) until reaching the desired size. Allow to harden for approximately 12/15 days before applying subsequent layers. (consumption approx. 0.60 kg/m² x 1 mm thickness)
2- First coat application of 7/8 mm of reinforced finish using a 1 cm notched trowel for NS67 type plaster RASOTHERM® NATURAL LIME (from now on always wet on wet)
To create the thickness of the reinforced plaster, apply the first layer with a notched steel American spatula (1/1.5 cm notch) of at least 3-4 mm of the NS67 RASOTHERM® NATURAL LIME type plaster to form a consistent and regular layer.
Fix a 4x4 mm glass fibre reinforcement mesh, of approximately 160 g/m². This step involves: positioning/laying the mesh so that it remains in the outer third of the thickness of the plaster itself.
3- Covering of the reinforcement mesh with a second coat of NS67 RASOTHERM® NATURAL LIME type plaster. As soon as possible, proceed with its subsequent covering with the same product, with a straight blade to level the surface.
This will serve to completely cover the mesh and make the surface more flat and uniform.
4- Application of a third coat with NS67 RASOTHERM® NATURAL LIME
Once consolidated, apply a subsequent coat of NS67 RASOTHERM® NATURAL LIME type plaster to finish at least 2/3 mm (for this operation it is recommended to smooth with 80/100 cm stucco spatulas); to improve the aesthetic finish, if necessary, float the applied product with a dry sponge tool, without wetting the surface, before it is completely dry. Leave to dry for at least 5/7 days.

FINISHING:
1- Spray Primer type NS67 CMIX diluted 1:6 as a primer and let dry for 4 hours (diluted yield 8/10 m²/L)
2- Spread NS67 FONDO UNIFORMANTE, consumption 0.35-0.40 Kg/m² (yield 32 m²/per pot) and let dry for 8 hours.
3- Spread two coats of IR WALL PLUS paint (for exteriors) or IR INSIDE PLUS (for interiors) at least 4 hours apart, yield 5 m²/L (yield 50 m²/per pot).

vers. 09/06/2025