

PRODUCT DATA SHEET

Sika® R-I-Z +

HIGHLY BREATHABLE MORTAR NATURAL HYDRAULIC LIME NHL 3.5 BASED, CEMENT FREE, FOR RENDERING, PLASTERING AND SKIRTING.



DESCRIPTION

Sika® R-I-Z + is a highly breathable, cement free, mortar used for rendering, plastering and skirting of load-bearing walls and cladding, using only one product. Sika® R-I-Z + is specially formulated with natural hydraulic lime NHL 3.5 to ensure perfect compatibility with substrates in brick, stone and mixed masonry of new construction or, in the case of preservation, historic structures also of cultural interest.

USES

Sika® R-I-Z + can be used to realize:

- Breathable plastering in new buildings;
- Plastering for old walls restoration;
- Restoration of historic buildings;
- Plastering and rendering according to Bio-Construction and Bio-Architecture method

Sika® R-I-Z + is suitable to be used on following substrates, indoor and outdoor:

- bricks;
- hollow bricks;
- stone walls;
- mixed masonry;
- tuff blocks (or local stones) with not powdery surface.

CHARACTERISTICS / ADVANTAGES

- Render, plaster and skirting with a single product;
- Cement free
- Natural hydraulic lime NHL 3.5 (EN 459-1)
- Excellent workability;
- It can be easily applied, either by hand or by machine;
- It does not require anti-salt preliminary treatment;
- Mechanical behaviour compatible with the masonries (also hystorical);
- High water vapor permeability

APPROVALS / CERTIFICATES

CE Marking and Declaration of Performance to EN 998-1:2016, class R (restoration mortars)

PRODUCT INFORMATION

Packaging	25 kg bags
Appearance / Colour	light beige powder
Shelf life	12 months from the date of production
Storage conditions	The product must be stored properly in undamaged original sealed packaging, in dry and cool conditions.
Density	after mixing ~1.55 kg/l after application ~1.65 kg/l appearing density 1,40 kg/l +/- 0,05 kg/l (EN 1015-10)

Maximum Grain Size Dmax= 2,5 mm

TECHNICAL INFORMATION

Compressive Strength	Class CSII	(EN 1015-11)
Tensile Adhesion Strength	~ 0,2 MPa (FP:B)	(EN 1015-12)
Reaction to Fire	Euroclass A1	(EN 13501-1)
Permeability to Water Vapour	$\mu \leq 15$	(EN 1015-19)
Capillary Absorption	~ 1,90 kg/m ²	(EN 1015-18)
Water penetration after capillary absorption	~ 4,0 mm	(EN 1015-18)
Thermal Conductivity	~ 0,42 W/mK	(EN 1745)

APPLICATION INFORMATION

Mixing Ratio	For rendering (layer of adhesion)	5,75 - 6,25 l, according to requested workability
	For plastering and skirting:	4,75 - 5,25 l, according to requested workability
Consumption	for plastering ~13.0 kg/m ² /cm of thickness	
Consistency	Plastic-tixotropic	
Product Temperature	+ 5°C min. / +35°C max.	
Ambient Air Temperature	+ 5°C min. / +35°C max.	
Substrate Temperature	+ 5°C min. / +35°C max.	
Pot Life	> 30 min at +20°C	

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Remove completely any damaged or detached plaster, with particular attention to bed joints and among the masonry elements, which will be cleaned in depth.

Clean completely the masonry by means of high-pressure waster (200-400 bar) to obtain a healthy, clean and sound substrate and mechanically suitable to receive subsequent processing. In case of salt efflorescence repeatedly wash the surface.

If you need to regularize the surface with brick by brick (cuci-scuci) method of patching, use Sika MonoTop®-722 Mur mortar. Thoroughly wet the surface: before the application, the surface must appear opaque.

MIXING

Mix one bag of Sika® R-I-Z + with the appropriate amount of water according to the desired workability using drill mixer low speed or suitable cement mixer, until obtaining homogeneous, free from lumps and with creamy consistency.

Do not add excess water at the beginning of mixing, when the mortar appears dry, but continue for at least 3 minutes to allow adequate air entrapment.

Let the mixed product rest for a few minutes, to allow a better hydration of lime: in this way the product will show a better workability and ease of application.

APPLICATION

First apply the adhesion layer using Sika® R-I-Z + with semi-fluid consistency, applied with a trowel or spray. Wait for the setting of the adhesion layer. The timing depends on temperature and humidity conditions.

Further layers of plaster with Sika® R-I-Z + must be applied on the previous adhesion layer hardened, able to support the weight of the layers. Keep moist the surface of adhesion layer, wetting if necessary.

Sika® R-I-Z + with plastic consistency, workable and thixotropic, must be applied by trowel or by spray to make plaster and skirting. Prepare bands to adjust the thickness of application directly with Sika® R-I-Z + with thix consistency. Subsequently, plaster and regularize with straightedge and float the surface with wooden instruments, to leave rough, porous and open texture surface of the plaster. The maximum thickness per coat is about 2 cm, in case you need to apply a thicker layer of plaster or skirting, apply subsequent layers. The total thickness of about 2 cm is recommended.

Sika® R-I-Z + must be finished with the appropriate product SikaMur® Finish, smoothing based on natural hydraulic lime NHL 3.5, highly breathable. Use paints of SikaMur® Color range for the finishing of the system.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardener material can only be mechanically removed.

IMPORTANT CONSIDERATIONS

- Finish Sika® R-I-Z + with tools and wood screeds, do not use steel or plastic tools to not close the surface pores compromising the breathability of the system.
- Sika® R-I-Z + can be applied mechanically with traditional plastering machines. For further information, contact our Technical Department.
- Small cracks on the surface of the plaster can appear during curing and aging: this is normal behavior for natural lime-based products. It is recommended to wait a sufficient curing time of the plaster made with Sika® R-I-Z + before the application of SikaMur® Finish, to prevent a recurrence of cracks caused even on the surface.
- You can apply Sika® R-I-Z + on slightly damp or with moderate rising damp issues are present. In case of severe rising damp problems, use SikaMur® range products.
- Do not add any cement or additives either in powder or liquid.
- Protect the surfaces from direct sunlight and strong wind in the first phase of maturation.
- Keep the surface wet for the first 24 hours after application.
- Protect from rain until fully hardening, to be checked according to the environmental conditions of temperature and humidity

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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