

RSR 421

DATA SHEET

Fibre reinforced and compacted coating
boasted with siloxanes



Exteriors



Plastic containers



Metal trowel



Plastic trowel

Composition

RSR 421 is a finish coat paste for exteriors made from special water-based siloxane binders and organic binders in aqueous emulsion, which together provide breathability, water repellency and excellent weather resistance. Special molecules also provide the product broad-spectrum protection against algae and mould species.

Supply

- Containers of approx. 25 kg
- Tints: a selection from our 365 A YEAR OF COLORS swatchbook

Use

RSR 421 is used as a protective and decorative coating, white and coloured, on lime-cement base coatings for exteriors, including in dehumidifying cycles and on external thermal insulation composite systems, especially where both high breathability and low water absorption are needed.

Substrate preparation

The surface to be coated must be free from dust and dirt, etc. Any traces of oil, grease, wax etc. must be removed beforehand. If the surfaces being decorated are in a state of deterioration due to stains and various types of persistent dirt, before beginning the decoration cycle, these should be treated with ACTIVE ONE solution for cleaning walls. Depending on the state of deterioration, the cleaning treatment may be repeated, with the addition of mechanical brushing.

External Wall Insulation System

When the layer of reinforced skim coat has cured, apply the primer for silicone resin coating cycles FS 412 or FX 526 universal pigmented primer to the dry and clean substrate. Before applying the RSR 421 coating, wait at least 16-24 hours after application of the primer.

Lime-cement render and reinforced base coats

The base coat plaster, which RSR 421 is applied on, must be well finished.

When the plaster has cured, apply the primer for silicone resin coating cycles FS 412 or FX 526 universal pigmented primer to the dry and clean substrate. Before applying the RSR 421 coating, wait at least 16-24 hours after application of the primer.

For the dehumidifying system use the primer for silicone resin coating cycles FS 412.

If RSR 421 is applied on very smooth surfaces, which are non-porous, slippery, or with low absorption, you should apply a coat of the pigmented undercoat FX 526 (instead of FS 412) in white or in the same shade as the coating.

Application

Apply using a metal trowel, taking care to distribute the material uniformly. The surface is finished using a plastic trowel with circular movements. Application of the 0.6 mm grading requires 2 layers of material. The second layer must be applied when the first is completely dry. In addition, a metal trowel is preferable for both application and finishing.

Warnings

- Product recommended for expert users.
- Always consult the safety data sheet before use.
- Wear protective gloves and garments, and in the event of contact with the skin wash with plenty of water and soap.
- Use water to clean tools.
- Tool wash water and any product residues must not be released into the environment or discharged into the domestic sewage system. The recipient/product/wash water must be disposed of in accordance with national laws.
- Use all the material necessary for the work from the same batch.
- Avoid application at temperatures below +5°C or above +30°C and with a relative humidity higher than 75%.
- Avoid application on surfaces in full sunlight or with strong winds.
- Only apply RSR 421 on cured and dry plasters and adhesives.
- Do not apply on damp masonry and/or in colder periods, as the plaster may detach and the paint may blister due to the accumulation of moisture inside.
- Avoid application on the same façade at different times.
- The product dries physically by elimination of water. Unfavourable weather conditions may delay complete drying, with phenomena such as "streaking", washing away, stains, colour alterations, etc. possibly occurring.
- Exterior façades coated with RSR 421, during application and on the days after drying, must be protected against rain or other precipitation and high relative humidity in the atmosphere (fog) for at least 48-72 hours.
- The elements, above all intense exposure to UV radiation and humidity, may modify the surface layer of the coating over time, causing more or less evident variations in colour, depending on the colour applied.
- The product is not suitable for protection of horizontal or inclined exterior surfaces, where water may accumulate.
- The possible presence of grains that are darker colour on the surface should not be considered a defect, rather is due to the natural variability of the granular mineral and natural sands used in RSR 421.
- All colours containing RB organic red colourant paste are excluded from BBA certification.
- The 0.6 mm grading guarantees optimum results only if applied on small surfaces (approx. 10 m²). This grading is also not recommended for the External Thermal Insulation Composite System
- Given the large number of mould species and different climatic conditions, in some cases the additives used may not guarantee complete disappearance or stop the spread of certain plant micro organisms over time.
- Additional note regarding the product packaged in recycled plastic packaging, easily recognisable by the grey colour. The variability of the raw materials making up this type of packaging may mean that the mechanical strength and colour of the packaging is inconsistent. Therefore, pay the utmost care when transporting and handling the product. Store protected from frost and direct sunlight, at a temperature between +5°C and +35°C.
- The images and illustrations are purely indicative. The characteristics and qualities of the product specified on the datasheet remain unchanged, regardless of the external appearance of the container.
- The information provided on this technical datasheet is based on our technical and practical knowledge and experience. The technical data refer to the average characteristics of the basic product and are determined under controlled laboratory conditions. The variability of the natural raw materials available on the market and the tinting of the product can lead to slight deviations in the declared values, in the colour and in the aesthetic effects obtained. It is therefore necessary for the purchaser/user to personally verify, before application, the suitability of the product for the intended use, in particular when different lots of the same material are used in the same job/site (this is however not recommended as per point 6 of these warnings).

RSR 421 must only be used in its original state, without the addition of other materials, except when the material has been stored for several months; in this case, small amounts of water can be added (up to 2% by weight) to restore suitable consistency.

An excessive dilution will affect product workability and cause a decline in its characteristics.

Storage

Protect from frost. Store at temperatures above +5°C and below +35°C. If stored in a cool, dry place, away from sources of heat and sheltered from sunlight, in its sealed original packaging, the product has a shelf life of 12 months. Once the product has expired, it must be disposed of in accordance with the current legislation.

Quality

RSR 421 is subjected to accurate and constant checks in our laboratories. The raw materials used are rigorously selected and controlled.

Technical Data

Specific weight	1.70-1.90 kg/l
Dilution	ready-to-use
Classification according to standard EN 15824	
Water vapour permeability (EN ISO 7783)	Class V2, medium ($0.14 \text{ m} \leq S_d < 1.4 \text{ m}$)
Liquid water absorption (EN 1062-3)	Class W3, low ($W \leq 0.1 \text{ kg/m}^2 \cdot \text{h}^{1/2}$)
Adhesion (EN 1542)	$\geq 0.3 \text{ MPa}$
Thermal conductivity (EN 1745)	$\lambda = 0.74 \text{ W/m}\cdot\text{K}$ (tabulated value)
Reaction to fire (EN 13501-1)	A2-s1,d0
Further technical characteristics	
Gradings	0.6 - 1 - 1.5 - 2 mm
ETA European Technical Approval is available for using the product in building external thermal insulation systems for 1-1.5-2 mm gradings only	
BBA Certificate available for 1-1.5-2 mm gradings only	
Italian CAM Building Decree of 23 June 2022, published in the Italian Official Journal on 06/08/2022	Complies with the criteria:
	2.5.13 paragraph b - Paints and varnishes
EU limit value of VOC content (Directive 2004/42/EC)	Category A/c, WB: max VOC 40 g/l Maximum VOC content in the product: < 40 g/l

Consumption

Grading 0.6 mm	
- on fine render, base coats such as A 50, etc.	approx. 2.5-2.7 kg/m ² (for two layers)
- on float-smoothed base coat render such as KI 7, KC 1, and on base coats such as A 96, etc.	approx. 3.0-3.2 kg/m ² (for two layers)
Grading 1 mm	
- on fine render, base coats such as A 50, etc.	approx. 2.0-2.3 kg/m ²
- on float-smoothed base coat render such as KI 7, KC 1, and on base coats such as A 96, etc.	approx. 2.2-2.5 kg/m ²
Grading 1.5 mm	
- on fine render, base coats such as A 50, etc.	approx. 2.3-2.5 kg/m ²
- on float-smoothed base coat render such as KI 7, KC 1, and on base coats such as A 96, etc.	approx. 2.4-2.7 kg/m ²
Grading 2 mm	
- on fine render, base coats such as A 50, etc.	approx. 2.6-2.9 kg/m ²
- on float-smoothed base coat render such as KI 7, KC 1, and on base coats such as A 96, etc.	approx. 2.7-3.4 kg/m ²
The indicated consumption values are to be considered purely indicative. The actual consumption must be checked directly at the building site.	

The above information refers to laboratory testing; it is possible that in practical applications on site these may differ considerably according to the conditions in which the material is applied. In any case the user must check that the product is suitable for the intended application, taking all responsibility for its use. Fassa reserves the right to make technical modifications without notice.

Technical specifications regarding the use of Fassa Bortolo products for structural or fire prevention applications will only be officially valid if provided by Fassa Bortolo's "Technical Service" and "Research, Development and Quality System". If necessary, contact Technical Service in your country of reference (IT: area.tecnica@fassabortolo.com, ES: asistencia.tecnica@fassabortolo.com, PT: asistencia.tecnica@fassabortolo.com, FR: bureau.technique@fassabortolo.fr, UK: technical.assistance@fassabortolo.com).

Please note that for the aforementioned products, the assessment is required by the appointed professional, in accordance with regulations in force.