

# SAN

## Restoration plaster

### mineral WTA renovation plaster for moist and salt-damaged masonry

Renovation plastering mortar R CS II acc. EN 998-1

- pore hydrophobic
- with high sulphate-resistance
- colour: grey



## Applications

- pore hydrophobic special plaster for the renovation of moist and salt-damaged masonry
- as 1st plaster layer for overall renovation plaster thicknesses < 40 mm
- as 2nd plaster layer irrespective of overall renovation plaster thickness
- for external and interior use

## Properties

- corresponds to the WTA certificate for renovation plaster systems according to WTA data sheet 2-9
- automatic air entrainment
- mineral
- high salt absorbency and salt retention capacity
- good workability
- good adhesion
- water-repellent
- vapour diffusion permeable
- suitable for machine application

## Composition

- quality-monitored
- Cement with high sulphate-resistance according to DIN EN 197-1
- graded stone aggregates in accordance with DIN 13139
- additives for regulating and improving workability and product properties
- low-chromate

## Substrate

### Suitable substrates

- All types of masonry

### Condition / Testing

- For assessing the plaster primer, VOB/C DIN 18350, Section 3, DIN EN 13914-1/13914-2 as well as the plaster standard DIN 18550-1/18550-2 should be observed.
- The substrate must be level, clean, load-bearing, absorbent and free of adhesion-reducing residues, efflorescence and sinter layers.

### Pretreatment

- Old plaster must be removed at least 80 to 100 cm above the visible or adjacent damaged zone up to the masonry.
- Crumbly masonry joints are to be scraped out approx. 2 - 3 cm deep.
- Damaged stones must be replaced.
- Clean masonry thoroughly and remove dust.
- Highly absorbent substrates should be wetted in good time, days before if need be.
- Completely remove non-load-bearing plaster, coatings or salt efflorescence.
- To improve adhesion, a net-shaped pre-spray (approx. 50 - 60% coverage) with akurit SAN-VS Sanier-Vorspritzmörtel should be applied according to WTA, depending on the substrate condition.

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### Processing

#### Temperature

- Do not process or allow to dry out at air, material or substrate temperatures below +5°C, or if there is a risk of exposure to night frost, or at temperatures above +30°C, or in direct sunlight, or on heated up surfaces, and/or in windy conditions.

#### Mixing / Preparing / Processing

- Suitable for processing by hand, or with conventional plastering machines.
- When using plastering machines, no additional equipment (e.g. additional mixers or air-entrained worm casing) needs to be used.
- When machine-processing: Adjust the amount of water accordingly to obtain a workable consistency.
- Drum mixers are not suitable.
- When mixing manually, first place the quantity of water specified in the technical data in a clean container and then sprinkle in dry mortar. Use clean tap water.
- use a suitable agitator to mix the material until smooth and free of lumps. Leave to rest for a moment and then mix again, adding more water, if required, to achieve the right consistency for applying.
- Do not mix with other products and/or other substances.

#### Applying / Processing / Assembling

- The application is done in 2 layers of plaster.
- **1<sup>st</sup> layer of plaster:** Apply renovation plaster in a minimum thickness of 10 mm. Do not exceed a plaster thickness of 20 mm. For thicker layers, use SAN-PG Restoration Base Plaster.
- In case of highly salt and/or nitrate-contaminated masonry, a minimum thickness of 15 mm is necessary as a special protective layer.
- Smooth off the surface perpendicular and flush and roughen up horizontally once it has stiffened.
- If the plaster is applied in layers, then allow an intermediate standing time of one day per mm of plaster thickness before applying the next layer.
- Before applying the 2<sup>nd</sup> plaster layer, any salt that may have slightly penetrated is to be removed mechanically.
- **2<sup>nd</sup> plaster layer:** Apply the second renovation plaster layer also with a thickness of at least 10 mm. Do not exceed 20 mm.
- Smooth off the surface perpendicular and flush and felt, grate, wash out or freely texture depending on the look required.

#### Processing time

- Approx. 2 to 3 hours
- The stated times apply for a temperature of +20°C and relative humidity of 65%.
- Mortar that has already started to harden must never be thinned down with additional water, remixed or applied.

#### Drying / Hardening

- If the weather conditions are unfavourable (e.g. driving rain, frost, strong sunlight and/or winds), then suitable protection measures must be taken, particularly in the case of freshly coated surfaces.
- To prevent the plaster from drying out too quickly at higher temperatures, the plastered area should be kept moist for at least three days.
- Low temperatures and/or high humidity will delay drying, while high temperatures and/or low humidity accelerate it.

#### Subsequent coating / workability

- All our thin layer mineral facing plasters are suitable as finish coats.
- Once fully dried out and sufficiently hardened, the plaster surface can be painted with vapour diffusion permeable silicate paints.

#### Tool cleaning

- Clean all tools and equipment with water immediately after use.

#### Notes

- Severely uneven substrates must be levelled in advance with SAN-PG Restoration Porous Base Plaster. The layer thickness of the levelling layer must be at least 10 mm.
- In case of a medium to high salt or moisture load, 2 layers of akurit renovation plaster WTA is necessary according to the renovation plaster recommendation.
- The akurit renovation plaster recommendation must be observed.
- Construction rubble close to the renovation site must be removed every day to prevent salt remigration.
- The diffusion-equivalent air layer thickness of  $s_d < 0.2$  m of each individual subsequent layer must not be exceeded.
- For total plaster thicknesses > 40 mm, the 1st plaster layer is to be made with SAN-PG Restoration Porous Base Plaster. The 2nd layer of plaster is then applied with at least 15 mm renovation plaster.

### Packaging

- 25 kg/sack

### Storage

- Store sacks appropriately and in dry conditions on pallets.
- If stored in its original packaging, the product will keep for at least 12 months from the date of manufacture.

### Quantity required / Yield

- consumption: approx. 13 kg/m<sup>2</sup> per 10 mm plaster thickness
- yield: app. 19 l fresh mortar per 25-kg-Bag
- The quantity required depends on the substrate and method of application. Determine the exact quantities required by carrying out a trial on site.

### Technical Data

|   |                                    |
|---|------------------------------------|
| <b>Product type</b>   | Renovation plastering mortar R     |
| <b>Category</b>   | CS II                              |
| <b>Grain</b>  | 0 – 1,2 mm                         |
| <b>Water requirement</b>                                      | approx. 8.0 l per 25 kg/sack       |
| <b>Compressive strength</b>                                   | 1.5 - 5.0 N/mm <sup>2</sup>        |
| <b>Water retention</b>  | > 85 %                             |
| <b>Adhesive tensile strength</b>                              | ≥ 0.08 N/mm <sup>2</sup>           |
| <b>Set mortar bulk density</b>                                | ≤ 1,2 kg/dm <sup>3</sup>           |
| <b>Capillary water absorption</b>                             | ≥ 0,3 kg/m <sup>2</sup> after 24 h |
| <b>Water penetration</b>                                      | < 5 mm                             |
| <b>Water vapour permeability μ</b>                            | < 12                               |
| <b>Air void content</b>                                       | ≥ 25 % by vol.                     |
| <b>Porosity</b>   | > 40 % by vol.                     |
| <b>Thermal conductivity λ<sub>10,dry,mat.</sub> for P=50%</b> | ≤ 0.33 W/(mK)                      |
| <b>Thermal conductivity λ<sub>10,dry,mat.</sub> for P=90%</b> | ≤ 0,36 W/(mK)                      |

All data are average values that were determined under laboratory conditions according to relevant test standards and application tests. Deviations are possible under practical conditions.

### Safety and disposal instructions

#### Safety

- This product produces an alkaline reaction when it comes into contact with moisture/water. Therefore ensure that skin and eyes are protected. If it should come into contact with the skin or eyes, rinse them thoroughly with water. See a doctor immediately if it comes into contact with the eyes.
- Follow further instructions in the safety data sheet.

#### GISCODE

- ZP1 (products containing cement, low-chromate)

#### Disposal

- Dispose of the material in accordance with the official regulations.
- Completely empty and recycle the packaging.
- Dispose of hardened product in accordance with the local regulations. Do not allow to enter the sewer system. Dispose of the hardened product in the same way as concrete waste and slurries. Waste code according to the Ordinance on the European Waste Catalogue depending on the origin: 17 01 01 (concrete) or 10 13 14 (concretewaste and concrete slurries).

### General notes

This information sheet provides only general recommendations. Should you have any queries relating to a specific application, please contact our technical sales advisor or call our hotline: +49 541 601-601. WTA renovation plasters are not a substitute for waterproofing in buildings. WTA is the German scientific-technical working group for building preservation and monument conservation (Wissenschaftlich-Technische Arbeitsgemeinschaft für Bauwerkserhaltung und Denkmalpflege e. V.). All of the details given are based on our current knowledge and experience and on the assumption that the materials are professionally applied and used for their normal purpose. All of the details are non-binding and do not release users from their duty to undertake their own tests to ensure suitability for the intended application. Due to the effects of different weather, processing and construction site conditions, no guarantee can be given for the general validity of all details. We reserve the right to make changes as a result of further development of the product and applications engineering. The general rules for construction engineering, the valid standards and guidelines, and the technical working guidelines must be observed. The publication of this technical data sheet renders all previous editions of this data sheet void. Please obtain the latest information from our website.