



## Technical Data Sheet Art. No. 0402

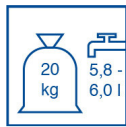
# Restoration Render

Fibre based, WTA restoration render that can also be applied in one layer

Low in chromates in accordance with RL 2003/53/EC



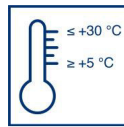
For use  
indoors and  
outdoors



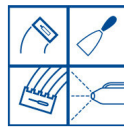
Dry mortar /  
water



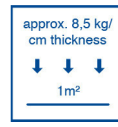
Mixing time



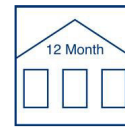
Working  
temperature



Mortar cover /  
filling knife /  
trowel /spray  
on



Total applica-  
tion rate per  
cm thick layer



Shelf-life



Protect from  
moisture

### Range of use

- Repair, renovation and restoration of damp, salt loaded wall surfaces and masonry work
- Interior wall surfaces in basements, old buildings and facades, heritage buildings and monuments
- Used in combination with Remmers Undercoat Render when there are heavy salt loads
- Can be applied in a single layer as an undercoat and finish
- Can be used on all mineral substrates suitable for the application of render, e.g. masonry brick, sand-lime brick, concrete, aerated concrete, rubble stone and lime and lime-cement render (indoors and outdoors)

### Property profile

Remmers Restoration Render is a factory mixed, mineral, light-weight render with excellent properties for refurbishing buildings.

- Binder with high sulphate resistance and low effective alkali content

### Characteristic data of the product

Bulk density:	approx. 0.9 kg/dm <sup>3</sup>
Colour:	off-white
Working time:	approx. 60 min.
Compressive strength:	CS II
Capillary water absorption $w_{24}$ :	$\geq 0.3 \text{ kg/m}^2$
Water penetration depth h:	$< 5 \text{ mm}$
Water vapour diffusion coefficient:	$\mu \leq 15$
Thermal conductivity:	$\leq 0.27 \text{ W/(m} \cdot \text{K)}$
Reaction to fire (DIN EN 998):	Euro Class A1

- Easy to apply and finish the surface in one coat up to 30 mm thick!
- Can be applied by machine
- Highly stable
- Promotes drying, salt resistant with large, active pore volume ( $> 50 \%$ )
- Prevents heat loss that results from the penetration of moisture
- Condensation does not form on the surface
- Resistant to water, weather and frost.

### Substrate

The substrate must be load-bearing and free of substances that could interfere with adhesion. Thoroughly remove old and damaged render as well as paint and other coatings at least 80 cm above the damaged zone. Chase out friable joints 2 cm deep. The substrate must be dry to matt damp (max. 6 % by mass) but should not show any pressing moisture. Treat rising damp with the Remmers Kiesol System. If there are heavy salt loads, apply Remmers Undercoat Render (Art.

No. 0401) beneath the restoration render.  
Pre-wet absorbent substrates until the surface is matt damp (not wet). On absorbent masonry with less strength, the restoration render can be applied as a bonding layer. On dense substrates, throw on Remmers Preparatory Mortar (Art. No. 0400) over the entire surface; otherwise in nodules (50 % coverage). If a mineral waterproofing grout is applied (e.g. Remmers Sulfatex Grout, Art. No. 0430), a spritz is applied over the entire surface of the last still fresh layer of grout. The adhesion capacity of the preparatory mortar can be improved by modifying with Remmers Haftest (Art. No. 0220). After the preparatory mortar has set (24 - 48 hours), the render can be applied.

### Directions

Pour **approx. 5.8 – 6.0 litres of water** into a clean container (mortar tub), then add **20 kg Restoration Render**. Mix with a suitable mixer (e.g. BEBA double shaft mixer) for approx. 3 minutes until homogenous and the proper consistency for working has been achieved. If a machine is used for application, the water setting depends on the screw conveyer used.

**Apply Restoration Render in one layer from 2 to 3 cm thick.**

The render is applied first as a contact layer which is allowed to briefly set and is then filled to the specified layer thickness. In areas that are highly uneven or have missing areas, work should be carried out in two layers to avoid great differences in the thickness which could lead to cracks or hollow areas. The first layer should be roughed, e.g. with a render comb, to provide anchorage for the second layer. The second layer is applied as soon as the first has sufficiently dried, at the earliest the following day.

If only shorter waiting/standing times are available, work can be carried out in one working operation, 'wet-on-wet' (wet-on-damp). In this case, a layer of reinforce-

ment fabric, iQ Tex 6.5/100 (Art. No. 0236), should be placed between the layers.

On critical substrates, we recommend working the reinforcement layer into the upper third of the restoration render.

Immediately close the freshly applied restoration render with a moistened toothed float, then level with the smooth side. After the surface has become matt, it is carefully worked with a soft sponge float and after further setting finished with the same sponge float.

Very smooth, fine surfaces can be achieved if the surface is worked over with a grated scraper after sufficient setting. Remmers Fine Render (Art. No. 0408) is then applied after a waiting time of at least 3 days.

Textured surfaces can be produced with Remmers Decorative Render L (Art. No. 0515).

### Notes

Initially set mortar cannot be made workable again by adding water or fresh mortar. Do not use if the temperature of the air, substrate or building material is below 5 °C or above 30 °C. The characteristic data given for the product was determined under laboratory conditions at 20 °C and 65 % relative humidity. Lower temperatures lengthen, higher temperatures reduce working and setting time.

May contain traces of pyrite or iron sulphide.

**Do not use on gypsum substrates.**

Protect the fresh render from drying out too quickly, especially in sunlight and wind outdoors and drafts and thermal loads indoors. If necessary, subsequently moisten/spray with water.

To ensure the success of the restoration measures, drying conditions must be conducive, e.g. by setting up room dryers after the applied render has sufficiently set (at the earliest after 7 days). See WTA Code of Practice 2-9-04/D. The surface of the render should be free of visible cracks. Fine hair

cracks are of no concern since they do not impair the properties of the render.

### Tools, cleaning

Render machine with an after mixer, e.g. P.F.T. G4 or G5 with Rotoquir, Putzknecht S 48.3 or S 58, positive mixer, double shaft mixer, trowel, float, smoothing float, wood float, plastic float.

Clean tools with water while the render is still fresh.

### Packaging, application rate, storage

#### Packaging:

20 kg paper bags

#### Application rate – dry mortar:

Approx. 8.5 kg/m<sup>2</sup>/cm thick layer

#### Shelf-life:

At least 12 months stored dry in closed bags

### Safety, ecology, disposal

Further information on safety when transporting, storing and handling as well as disposal and ecology is found in the latest Safety Data Sheet.



**Remmers GmbH**  
Bernhard - Remmers - Str.13  
D – 49624 Lönigen

**06**  
**GBI P47-1**  
**EN 998-1: 2010-12**

**Sanierputz altweiß**  
Designed rendering/plastering  
mortar used on moist masonry  
walls containing water soluble  
salts

Reaction to fire:	class A1
Adhesion:	≥ 0,08 N/mm <sup>2</sup> (fracture pattern B)
Water absorption:	≥ 0,3 kg/m <sup>2</sup> after 24 h
Water vapour permeability:	μ ≤ 15
Thermal conductivity (λ10,dry):	≤ 0,27 W/(m*K) for P=50%
Durability (against freeze-thaw):	Resistant, by use acc. TDS
Dangerous substances::	NPD

The statements above are compiled from our field of production and according to the latest technological developments and application techniques.

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Remmers (UK) Limited Crawley  
United Kingdom  
Tel: +44 (0) 1293 594 010  
Fax: +44 (0) 1293 594 037  
[www.remmers.co.uk](http://www.remmers.co.uk)

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