

TECHNICAL SHEET 14.01-eng

LEVELLING AND RENOVATION RENDERS, MORTARS FOR RENOVATION OF CONCRETE

LEVELLING RENDER

Microreinforced façade levelling compound

1. Description, Application

LEVELLING RENDER is a micro-reinforced façade levelling compound processed with polymeric binders and having an exceptionally low elasticity module. It is used mainly for smoothing of roughly processed (also cracked) façade surfaces (lime-cement, cement, acrylic and other decorative render finishes applied on conventional surfaces or External Wall Insulation (EWI) systems), and also for smoothing of decrepit decorative render finishes on interior wall and ceiling surfaces. It qualitatively replaces conventional masonry treatments of interior or façade surfaces of walls made of porous concrete if it is applied onto such surfaces as a levelling compound since it is, unlike conventional render finishes applied to such surfaces, not susceptible to cracking. If it is reinforced with AKRIL EMULSION, a quality mortar compound is obtained. It is used to repair façade cornices, decorative window and door trims and similar façade decorations. If necessary, the compound can be reinforced with a suitable – vinyl-covered glass fibre mesh.

LEVELLING RENDER is a suitable surface for the application of thin- or thick-coat decorative render finishes as well as for being smoothed with fine render finishes or levelling compounds.

2. Packaging

Paper bags containing 20 kilos

3. Technical Data

Density (ready-to-use mortar compound) (kg/dm ³)		~1.52
Coat thickness (mm)		Up to 4 for an individual coat
Drying time T = +20 °C, relative air humidity = 65 % (hours)	Touch dry	~6
	Application resistant to rainfall	~□4
Water-vapour permeability EN ISO 7783-2	μ coefficient (-)	<30
	S _d value (t = 4 mm) (m)	<0.12 Class I (high water-vapour permeability)
Water absorption EN 1062-3 (kg/m ² h ^{0,5})		<0.11 Class W2 under EN 1015-18
Fire response		A1
Thermal conductivity λ (tab. value) (W/mK)		0.93
Compressive strength EN 1015-11 (MPa)		14.0 CS IV



Adhesion EN 1015-12 (MPa)	0.7 100 % B (fracture in the render finish)
Adhesion after weathering EN 1015-21 (MPa)	0.7 70 % B (fracture in the render finish) 30 % A (fracture in the joint surface between render finish/the surface)

Main ingredients: cement, polymeric binder, calcite filler, perlite, microfibres, cellulose thickening agent

4. Surface Preparation

The surface includes well-adhered mineral, acrylic, silicone or silicate decorative render finish or rough base coat if it is solid enough, dry and clean, without any badly-adhered particles, dust, water soluble salts, oils stains and other filth. Suitable surfaces also include surfaces of walls made of porous concrete. Hoover or sweep dust and other non-adhered filth, and wash away the non-decomposed remains of panelling oils from concrete surfaces with a high-pressure water blaster (hot water or steam). Remove all badly-adhered paint coats and coatings, all of which soak in water, from the already painted surfaces. It is obligatory to disinfect surfaces infected with wall mould prior to applying the levelling compound.

Prior to application of the levelling compound, dry or mature the newly applied render finishes for at least 7 to 10 days for each cm of their thickness (the stated drying times of the surface are valid in normal conditions: T = +20 °C, relative air humidity = 65 %).

Prior to the application of the levelling compound, coat the surface with diluted AKRIL EMULSION (AKRIL EMULSION : water = 1:1) and apply the LEVELLING RENDER onto the still wet primer if possible.

Approximate or average consumption:	
AKRIL EMULSION	90 - 100 g/m ²

5. Preparation of Render Finish for Application

Prepare the levelling compound in a concrete mixer or a suitable container (if mixed with an electric mixer or manually) by pouring the content of a bag (20 kilos) into 4.6 to 5 liters of water. Stir until the compound becomes homogenous. Wait for 10 minutes for the compound to swell. Then stir it well again. If necessary, add some water.

If the mortar compound is used to repair façade trims, cornices and other decorations, reinforce it by replacing 2 liters of water with 2 kilos of AKRIL EMULSION.

The prepared compound must be used within approximately 2 hours.

6. Application

Apply one or two, exceptionally three coats of the mortar compound manually with a notched steel smoothing trowel (width and depth of notches 8 to 10 mm) or spray it – suitable machines include aggregates for the application of fine mortar mixtures.

One-coat application:

Apply the mortar compound manually or mechanically onto a still wet undercoat and level and smooth the surface well with a stainless steel smoothing trowel. For the application of the MINERAL SCRATCH RENDER, suitably groove the surface.

Two-coat application:

Apply two coats of the render finish in the case of renovation of badly cracked render finishes and treatment of façade surfaces made of porous concrete. In both cases it is necessary to additionally reinforce individual parts or the total of processed surfaces with a vinyl-covered glass fibre mesh. Apply the first coat in the same manner as in the case of one-coat application. Thickness of the coat should be between at least 2 and maximum 4 mm. Immediately after the application, imprint a reinforcement mesh into it. After it has dried (at least 1 day for each mm of its thickness), apply the upper coat, which should be 1 mm thick at the most. Level and smooth the surface with circular movements to the maximum possible degree. In the case of application of the MINERAL SCRATCH RENDER, thicken the upper coat to at least 2 mm and groove it.



Three-coat application:

Apply three coats of the render finish in the case of levelling of larger uneven parts. Apply the first coat in the same manner as in the case of one-coat application. Its thickness should not exceed 4 mm. Apply the second coat in thickness of at least 2 and maximum 4 mm onto the first coat after four or five days. Immediately after the application imprint a reinforcement mesh into it. After it has dried (at least 1 day for each mm of its thickness), apply the upper coat, which should be 1 mm thick at the most. Level and smooth the surface with circular movements to the maximum possible degree. In the case of application of the MINERAL SCRATCH RENDER, thicken the upper coat to at least 2 mm and groove it.

In the case of multiple-coat application of the LEVELLING RENDER, respect rules for the application of base coats in contact External Wall Insulation (EWI) systems (application of reinforcement corner fittings on corners and reveal edges, application of additional diagonal reinforcement in corners of façade openings, switching of reinforcement mesh and similar).

Application of levelling compound is possible only in suitable weather or microclimate conditions: the temperature of the air and the wall surface should be between +5°C and +35°C and the relative air humidity should be below 80 %. Protect facade surfaces from sun, wind and rainfall using protective scaffold nettings; however, do not conduct any work in rain, fog or strong wind (≥ 30 km/h) despite such protection.

Approximate or average consumption: LEVELLING RENDER	~1.4 kg/m ² for 1 mm thick coat
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If the compound is reinforced (for the reparation of façade trims, cornices and the similar), the following is also needed for 1 mm thick coat: AKRIL EMULSION	~0.14 kg/m ²
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7. Tool Cleaning, Waste Management

Thoroughly clean the tools with water immediately after use.

Keep the unused powdery compound in a well sealed packaging for potential repairs or later use. Useless remains and waste should be mixed with water and when hardened deposited onto the dumping grounds of construction waste (waste classification number: 17 09 04) or of municipal waste (waste classification number: 08 01 12).

Cleaned packaging can be recycled.

8. Safety at Work


Apart from general instructions and regulations for construction or façade and painting works, please consider that the product contains cement and is therefore classified among dangerous preparations labelled as Xi IRRITANT. The content of chromium (Cr 6⁺) is lower than 2 ppm.

Protection of the respiratory system: the use of a safety mask in case a lot of dust is raised. Protection of hands and body: work clothing, preventive protection with a protection cream and the use of protective gloves are recommended in the case of prolonged exposure of hands. Protection of eyes: protective glasses or a safety mask when applied by spraying.

FIRST AID:

Contact with skin: remove clothing, which has been wetted, and rinse the skin with water and soap. Contact with eyes: immediately widen the eyelids, rinse thoroughly with clean water (10 to 15 minutes), seek medical advice if necessary. Ingestion: drink a little water several times, seek medical advice immediately.



Warning signs on the packaging	<p style="text-align: center;">Xi</p>  <p style="text-align: center;">IRRITANT! THE PRODUCT CONTAINS CEMENT!</p>
Special measures, warnings and observations for safe work	<p>R36/38 Irritating to eyes and skin. R41 Risk of serious damage to eyes.</p> <p>S2 Keep out of the reach of children. S24/25 Avoid contact with skin and eyes. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28 After contact with skin, wash immediately with plenty of water. S37/39 Wear suitable gloves and eye/face protection. S46 If swallowed, seek medical advice immediately and show this container or label.</p>


9. Storage, Transportation Conditions and Durability

During transportation, protect the product against moistening. Store in dry and airy places, out of the reach of children!

Shelf life when stored in an originally sealed and undamaged packaging: at least 6 months.

10. Quality Control

The product's quality characteristics are determined by the internal manufacturing specifications as well as by the Slovenian, European and other standards. JUB ensures achieving of the declared or set quality level by the ISO 9001 system for total quality management and control, which has been implemented at JUB for many years and which comprises daily quality checks in its own laboratories, and occasionally at the Construction Institute in Ljubljana and at other independent expert institutions in Slovenia and abroad. During the manufacturing process, JUB strictly complies with the Slovenian and European standards for protection of the environment and for ensuring security and health at work, which is confirmed by the ISO 14001 and OHSAS 18001 certificates.

	
JUB d.o.o. Dol pri Ljubljani 28 SI-1262 Dol pri Ljubljani Slovenija 08	
EN 998-1 Levelling mortar compound to be used outside and inside of a house (GP, CS IV)	
Fire response	A1
Adhesion	0.7 MPa 100 % B
Water absorption	W2
Water vapour permeability coefficient μ	<30
Thermal conductivity $\lambda_{10, dry}$	0.83 W/mK, P = 50 % 0.93 W/mK, P = 90 % (tab. value EN 1745)
Resistance to freezing/thawing	NPD

NPD: No Performance Determined



11. Other Information

The technical instructions in this brochure are given based on JUB's experience and are given as a guideline for achieving optimum results. JUB cannot accept any responsibility for the damage caused by incorrect selection of a product, incorrect use or unprofessional work.

This technical sheet supplements and replaces all preceding editions. JUB reserves the right to change and supplement data in the future.

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