

TECHNICAL SHEET 02.02-ENG

DECORATIVE MORTARS

MARKpro DECORATIVE MORTAR 1.5; 2.0mm

(SMOOTH MORTAR)

1. Description, use

MARKpro DECORATIVE MORTAR 1.5 is a 2.0 is a thin-layered delicate mortar based on polymer binders, which is characterized by evenly grained surfaced, and which is intended for decorative protection of façade wall surfaces, as the finishing mortar in heat-insulation systems. They adhere well to all finely coarse construction surfaces: on primer mortars of façade heat-insulation, standard fine lime-cement and cement mortars, etc..

In addition to **satisfactory hardness**, they are also characterized by **good resistance to water (hydrophobicity)**. MARKpro decorative mortar 1.5 and 2.0 is characterized by **proportionately good steam permeability, good resistance to effects of exhaust gases, UV rays and other atmospheric influences**, ensures **durability in all weather conditions**, even on façade surfaces of high buildings with minimum roof edges that are highly exposed to precipitation. The treated surfaces are provided with **proportionately good resistance (protection) to wall algae and mold**, and thus **adding biocide compounds before application is not necessary**.

2. Packaging, shades

Plastic containers, 25 kg each:

- White,
- Other shades in accordance with MARKpro tone chart,
- Under certain conditions, the product can be supplied in custom made shades in accordance with client's request.

3. Technical information

	MARKpro DECORATIVE MORTAR 1.5	MARKpro DECORATIVE MORTAR 2.0
Density (kg/dm ³)	1,6 – 1,8	1,7 – 2,0
Drying time – dry to touch T = +20 °C, rel. air humidity = 65 % (hours)	~6	~6

Main ingredients: polymer binder, calcite fillers, additives

4. Surface preparation

The surface should be hard, dry and clean – without loose particles, remains of formwork oils, grease and other impurities. Possible minor undulations – bumps and dents – make the trowelling of applied mortar difficult, and for this reason, in this respect, most attention should be paid to surface preparation.

Newly applied surface mortars, before applying decorative mortar, should be left to dry, for each centimeter of thickness at least 7 to 10 days (the said surface drying time applies to normal conditions: T = +20 °C, rel. air humidity = 65 %). Old hard mortars should be cleaned from all remains of rendering, spraying and all decorative coats. After cleaning, the surface should be thoroughly dedusted – preferably by washing, if necessary, and then the surface should be adequately patched and leveled.

Washing under running warm water or with steam is recommended for removal of remains of formwork oils from new surfaces, and in case of old surfaces, for removal of soot, moss, lichens, remains of paint, etc.

Adequate primers for individual types of surfaces are given in the following Table:

Surface	Primer	Consumption (depending on absorption and coarseness of surface)	Drying time
Fine lime-cement mortars and prime mortars of heat-insulation systems	MARKpro GRUND (the shade should be as close as possible to the shade of the mortar)	150 – 250 g/m ²	min. 12 hours
	Water diluted MARKpro façade paint (the shade should be as close as possible to the shade of the mortar; MARKpro façade paint : water = 1 : 1)	90 – 100 ml/m ²	4 do 6 hours

They should be applied with painting or mason brush, long threaded fur paint roller or textile paint roller, or by spraying. In normal conditions (T = +20 °C, rel. air humidity = 65 %) rendering can begin 12 hours after applying the primer.

WARNING! Before the beginning of works, all glass, stone and metal surfaces should be thoroughly protected (not all the stains can be removed!)

5. Preparation of mortar compound for rendering

Before use, the mortar compound should be well mixed with electric mixer, if necessary (only exceptionally), diluted with water (maximum **1 dl** per container). It is necessary to check the color shade, then the mortar compound should be equalized, in order to eliminate even the minimum – maybe imperceptible differences between individual containers. First, the content of four containers should be well mixed in a sufficiently large container. When we use one forth of compound prepared in this manner, the content of the next container should be poured in the equalization container, and we again mix it well with the remaining mortar compound in the container, etc. Equalization of white mortars from the same production batch that have not been diluted is not necessary.

Any type of “fixing” of the mortar compound during application (adding toners, solvents, etc.) is not allowed.

6. Rendering mortar

Mortar compound is applied manually – with stainless steel trowel, or mechanically, by spraying – in thickness that somewhat exceeds the diameter of the thickest grain of the filler (~20%). When spraying, it is necessary to follow instructions of mechanical equipment manufacturer. Immediately after rendering, the mortared surface should be smoothed with a hard plastic trowel. The trowelling is conducted with circular movements in diameter-length of two trowels (approx. 50cm) by softly pressing the trowel and without unnecessary use of more force-pressure on the trowel. During trowelling, it is necessary to regularly (after every approx. 5 diameters-circles pr approx. 0.5m²) clean-remove excess material from the trowel. The trowel should not be cleaned until it is completely clean, but it is necessary to leave some quantity of emulsion in order to prevent removal of too much material. The trowelling continues until equally grained structure is obtained. During trowelling, grains in the applied mortar layer should move only a little, repressing of mortar compound in the form of a wave in front of the trowel is not allowed. Appearance of such a wave can be in most cases attributed to excessive thickness of mortar or poorly prepared, i.e. insufficiently flat surface. Mortar lumps that protrude from the mortar surface should be at the end – several minutes after trowelling – impressed into it, by smoothly re-trowelling the surface with clean stainless steel trowel.

The work should take as little time as possible – without interruptions from one far edge of the wall to the other. In case of wall surfaces that stretch along several floors, the mortar compound should be rendered simultaneously on all levels: the rendering should begin on the upper level, and in lower levels the works should be conducted with “stepped distance”. Larger wall surfaces with adequately wide grooves, should be divided into smaller ones, with mortar edges, other decorations, frames or in some other way, which will prevent possible problems with continuous rendering of mortar, but also poor appearance because of possibly insufficiently flat surfaces. Joining of areas on edges of corners is facilitated by several centimeters wide finely trowelled belts, which give beautiful decorative effect to the finished surfaces. They are protected with appropriate wall paints, whereby it must be taken into account not to apply the coats uncontrollably over their edges on surfaces that have been prepared for the rendering of decorative mortar.

Rendering of mortar compound is possible only in adequate weather conditions, i.e. in appropriate micro-climate conditions: temperature of air and wall surface should not be lower than +5 °C or higher than +35 °C, and relative air humidity should be <80 %. Façade surfaces should be protected from the sun, wind and precipitation by using curtains, and despite this protection, the rendering should not be done during rain, fog or strong wind (≥30 km/h).

Resistance of fresh painted surfaces to damages because of draining water (rinsing of mortar) in normal conditions (T = +20 °C, rel. air humidity = 65 %) is achieved after 24 hours at the latest.

Approximate, i.e. average consumption:

~ 2,5 kg/m² (MARKpro DECORATIVE MORTAR 1.5)

~ 3,0 kg/m² (MARKpro DECORATIVE MORTAR 2.0)

7. Work safety and health, handling of waste, cleaning of tools

Eye protection with protective goggles or face shield is necessary only in case of applying the mortar compound by spraying, in all other cases the use of special personal protection equipment or special measures for safe work are not necessary. In addition to general instructions and regulations related to protection in the areas of construction, façade and paint works and instructions in the Safety Sheet, it is also necessary to comply with the following conditions:

R 52/53 – Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S 2 – Keep out of the reach of children

S 26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S 28 – After contact with skin, wash immediately with plenty of water

S 29 – Do not empty into drains.

S 46 – If swallowed, seek medical advice immediately and show this container or label

S 61 – Avoid release to the environment. Refer to special instructions/safety data sheet

Unused mortar compound in well closed containers should be kept for possible reparations. Liquid waste must not be disposed together with household waste, emptied into water, sewerage or soil. Hardened remains and waste should be disposed to a landfill for communal waste (classification number **08 01 12**) or construction waste (classification number: **17 09 04**).

Cleaned packaging can be recycled.

The tools must be thoroughly washed with water immediately after use, dried stains cannot be removed.

8. Maintenance and renewal of processed surfaces

Façade surfaces rendered with MARKpro DECORATIVE MORTAR 1.5 and 2.0 do not require special maintenance. Loose dust particles and other impurities can be swept with a broom, vacuum cleaned or washed with water. Adhered dust and hardened stains can be removed by means of soft wiping with wet cloth or sponge soaked in a solution of universal household cleaning agents, after which the surface should be rinsed with clean water.

Surfaces from where it is not possible to remove soil or stains in the described manner, should be repainted, which includes a double coat application of micro-reinforced façade paint REVITALCOLOR AG or micro-reinforced façade paint REVITALCOLOR SILIKON over the previous coat of the appropriate primer.

9. Storing, conditions for transport and shelf life

Storing and transport at temperature from +5 °C to +25 °C, protected from direct sun, out of reach of children

MUST NOT FREEZE!

Shelf life when stored in original, closed and undamaged packaging: at least 12 months.

10. Quality control

Qualitative characteristics of the product are determined in internal product specifications and Serbian, European and other standards. We are continuously verifying the achievement of the declared or prescribed level of quality on our own laboratories, at Institute IMS Ad Beograd. In product manufacturing, we strictly comply with Serbian and Serbian standards in the area of environmental protection and ensuring protection of health and safety at work.

11. Other information

Technical instructions in this brochure are provided on the basis of our experience and with a goal to obtain optimum results during use. We do not bear any responsibility for damages caused as the result of incorrect use of product, because of improper use or poor quality workmanship.

Color shade of the mortar can be different from the impressions in tone chart, model or confirmed sample, but the total difference in color (ΔE) is maximum 2.5 in case of shades from MARKpro tone chart. Total discrepancy of color for mortars prepared in accordance with other color charts can be higher than the guaranteed value specified in the previous sentence.

For control purposes, properly dried coat of mortar on the standard testing cardboard must be used. The difference in color shade that is the result of inadequate working conditions, technique of application and processing of the mortar compound that are not in accordance with the instructions for use, or applying on inadequately prepared surface, too little or too much absorbing, too little or too much coarse, which is moist or insufficiently dry surface, cannot be the subject of reclamation.

For applying in façade and heat-insulation systems we recommend mortars with brightness (Y) over 25. Darker mortars and mortars in intense shades of color that can be achieved only with organic pigments are somewhat less resistant to washing off under the influence of atmospheric water and are more prone to chalking. Reclamations for changes that occurred as the result of this on exposed façade surfaces in the form of faster fading, shall not be accepted. For this reason, with respect to conditions for the rendering of such mortar and maintenance of rendered surfaces it is necessary to consult with our experts for each individual case. The list of color shades that can be objectionable in this respect is available in stores with toning stations, as well as in our sales and technical-information department.

This Technical Sheet supplements and replaces all previous editions, we reserve the right to possible subsequent amendments.

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