

Capatect Naturstein

Natural stone for decorative facade design in Capatect façade systems

Product Description

Field of Application	Natural stone panel in the Capatect façade systems.
Material Properties	<ul style="list-style-type: none">■ High design variety■ Wide range of surface finishes■ Durable■ Color and light fast■ Frost resistant
Colours	Depending on the natural stone and the type of surface finish.
Storage	Dry, protected from moisture. Do not expose to the weather without protection.
Technical Data	<ul style="list-style-type: none">■ Tensile strength under flexion: $\geq 5,3 - 48,2 \text{ N/mm}^2$ according to DIN EN 12372■ Thickness: 8 - 20 mm (depending on the density)■ Frost-resistant: ≥ 48 cycles according to DIN EN 12371■ Capillary water absorption: $\leq 9.3 \%$ according to DIN EN 13755



Sales programme

Designation Natural stone	Standard formats (mm)	Standard Surface finishing
Granit BSO Granit GVO Granit CRD Anorthosit LAE Granit VOO Granit SGY GABBRO NIA	610 x 305 x 10	polished, ground C220, satin finish
Schiefer MAG	600 x 300 x 10	rough, cleft
Sandstein REM Sandstein OBK Sandstein OBB	600 x 300 x 10	ground C220
Vulkanit BST	600 x 300 x 10	ground C220
Kalkstein AMA Kalkstein JGB	610 x 305 x 10	ground C220, sandblasted, satin finish
Kalkstein GOK Kalkstein KRM Kalkstein KUR Kalkstein SSN Travertin TBE	600 x 300 x 10	ground C220, sandblasted, satin finish

Max. producible formats on request.

Special formats, surface (e.g. blasted) and edge finishing (e.g. sawn or lightly honed) and minimum order quantities on request.

The total quantity for a construction project must be ordered as a single batch.

Application

Consumption	Depending on the format, joint width, joint depth and installation plan.
Application Conditions	During application and the curing phase, the temperature of the environment and substrate must not fall below +5°C or rise above 30°C. In the event of unfavourable weather conditions, take appropriate measures to protect the treated façade surfaces.
Drying/Drying Time	Laying adhesive: approx. 4 days depending on temperature, layer thickness and relative humidity. Depending on the weather conditions, longer standing times are possible.
Tool Cleaning	Immediately after use with water.
Laying and Jointing	<p>Levelling layer: For Cladding with a side length ≥ 49 cm, the evenness of the surface of the hardened base coat must not exceed a tolerance of 2 mm in relation to the maximum edge length of the cladding to be applied. If necessary, an additional levelling layer approx. 2 mm thick must be provided to ensure sufficient evenness. The levelling layer, which also securely covers the dowel heads, must be produced with a base coat suitable for the system.</p> <p>Preparatory work: Observe fixed lines (e.g. windows, doors, roll layers, etc.) when dividing up the dimensions. Divide the areas to be laid evenly with continuous height markings (string course) to define working sections and exact joint dimensions. To achieve the planned appearance, it is recommended that the material is taken from several pallets or boxes and laid out in such a way that the desired appearance is achieved.</p> <p>Bonding using the buttering-floating method: Cladding is bonded using the buttering-floating method with <i>Capatect Verlegemörtel Uni 086</i> once the base coat layer has hardened sufficiently. The adhesive is applied as a scratch coat to the back of the natural stone (not notched) and to the hardened base coat with horizontal notches using a trowel with notches, preferably 20/15 mm, so that almost full-surface bonding can be achieved. The natural stone slabs are pressed on with a sliding movement in a vertical and horizontal direction. The use of glass suction cups is recommended for laying large-size natural stone, provided the natural stone surface permits this. The laying adhesive must be smoothed on the side and top edges of the natural stone before laying the neighbouring natural stone (smooth joint).</p>

Grouting:

After a minimum standing time of approx. 4 days, jointing can be carried out with *Capatect Fugenmörtel 082* or *Capatect Fugenschlämme 083*. Depending on the weather conditions, longer standing times are possible. Joint flanks must be clean and free of substances with a separating effect. Remove loose residues of dried out laying adhesive. Ensure uniform joint depth and joint width. For grouting, use trowel grouting, slurry grouting or the injection method. To select the type of grouting and to assess the visual result, it is recommended that a test area is created and approved by the client.

Capatect natural stone in small size:

Natural stone in small size can be applied and compacted using *Capatect Fugenschlämme 083* by slurry grouting or by injection and *Capatect Fugenmörtel 082* by trowel grouting.

Capatect natural stone in large size:

Natural stone in large size must be applied and compacted using *Capatect Fugenschlämme 083* by slurry grouting or by injection in two working steps.

Sandstone in large size:

Sandstone in large size must be applied and compacted using *Capatect Fugenmörtel 082* by trowel jointing in two working steps, alternatively *Capatect Fugenschlämme 083* may be applied and compacted in two working steps using the injection method

Absorbent joint edges:

Absorbent joint edges must always be pre-wetted.

Joint proportion:

The proportion of joints should be at least 6 % of the cladding surface. If this is not achieved, proof of long-term freedom from condensation must be provided using a calculation method (transient heat and moisture transport). In any case, mathematical proof of water vapour diffusion is required.

Joint widths:

The recommended joint widths are 6-12 mm for small sizes and 12-20 mm for large sizes.

Creation of expansion joints:

Building expansion joints are to be taken over in the same width. This involves a complete system separation up to the raw wall. Field boundary joints are generally to be planned and executed depending on the sizes and colours of the Cladding, the direction of the façade and the selected system structure of the ETICS. Connection joints between the ETICS with hard cladding surface and components with other expansion coefficients, e.g. window and door frames, can be dimensioned in accordance with DIN 18540.

Plinth area:

All base coats used in insulation systems require an additional moisture protection coating, at least in the areas in contact with the ground. The Cladding that ends approx. 2 cm above the edge of the ground must be coated or protected with a moisture protection coating (e.g. with *Capatect SockelFlex Carbon*) up to the lower edge of the Cladding that is permitted in the system structure.

Claddings that tie into the ground must be coated or protected at least up to the top edge of the ground, according to the guideline up to approx. 5 cm above the top edge of the ground (design variant depending on the selected Cladding). Claddings that bind into the ground must be coated or protected at least up to the top edge of the ground, according to the guideline up to approx. 5 cm above the top edge of the ground (design variant depending on the selected Cladding). Care must be taken to ensure that the surfaces are not subjected to constraints; surfaces made of concrete, bitumen, paving etc. that are in contact with the ground must be safely avoided.

Note on joint material:

Use material from one batch number on contiguous surfaces. Natural colour shifts and colour shade differences are possible with changing batches and different drying conditions. Inhomogeneous material, fluctuating mixing water quantities and non-compliance with the maturing time can lead to an uneven joint colour, especially with highly pigmented or dark joint colours.

Tightness of the joint:

In the ETICS '*Capatect System Natural Stone*', the tightness of the joint must be checked using the Karsten test tube (Karsten'schen Prüfröhrchen). Within the first 28 days after jointing, a maximum water absorption of 3 ml per minute and 3 cm² test area (maximum individual value) must not be exceeded.

Note on natural stone:

Natural stone is a natural product, meaning that each stone is unique. Natural stone always exhibits natural deviations in terms of colour, texture, surface pattern, surface, quartz inclusions, etc., even within a block. These variations, which may take the form of clouding, veining, pores, open patches, chips, cracks, quartz veins, etc., therefore do not constitute grounds for complaint, even if they occur intermittently within a delivery. Natural stone may have inclusions of pyrite, which can cause rust runners. This is natural and cannot be influenced. When sampling natural stone, it should always be noted that the sample can only show the general colours and structure of the type of stone. We cannot guarantee that the material ordered or supplied by us will match the samples provided. Samples should always be ordered close to the time of the actual order, as otherwise major colour deviations due to changes in the quarrying situation and quarrying locations cannot be ruled out.

Limestone and sandstone in outdoor areas:

If used correctly and waterlogging is avoided, there is virtually no risk of frost damage. Limestone and sandstone are not resistant to de-icing salt.

Dimensional tolerances:

The permissible dimensional tolerances of individual natural stone tiles are documented in DIN EN 12057. Unevenness in the surfaces of the cladding that is visible in grazing light is permissible if it lies within the dimensional tolerances in accordance with DIN 18202.

Impregnation:

For materials that are highly sensitive to moisture (e.g. some limestone or sandstone), it is recommended that a suitable protective system is applied after the façade work has been completed. As the application of e.g. impregnations can cause optical changes to the stone surface (colour shade, gloss), a test area should always be created in advance. It is important that the natural stone is clean and completely dry before the impregnation is applied. If the pores are not completely dry, the impregnation cannot penetrate and is ineffective.

Cleaning and care:

There are numerous methods for cleaning natural stone façades. The recommendation of a cleaning method can only be made depending on the existing natural stone and the type and extent of soiling. In order to select a suitable cleaning method, extensive preliminary investigations into the soiling and comprehensive knowledge of the natural stone are generally required. The selection of a cleaning method should therefore always be left to an expert. Specialist natural stone companies will be happy to advise you on the respective cleaning options. (Notes in accordance with BTI 3.2 from DNV). Only use alkali-free, non-corrosive, acid-free and non-scratching cleaning agents. Use sufficient fresh (lukewarm) water when cleaning natural stone. Cleaning with a brush and water without cleaning products is often sufficient.

Note

Joint and installation plan:

On the construction project, the approved planning documents, in particular the joint and installation plan, must be observed.

Technical rules:

The application is generally carried out according to the rules of the trade for the installation of mortared tiles and slabs (according to DIN EN 18515-1).

Note:

For the application of the products or types of construction, the official documents of the building authorities must be observed. In Germany, this corresponds to the "allgemeinen bauaufsichtliche Zulassung" (general building approval)/ "allgemeinen Bauartgenehmigung" (general construction type approval) of the ETICS and the products. Internationally, the "European Technical Assessment" (ETA) applies. In addition, national and international the technical information for the products must be taken into account.

Advice

Approval

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