Recommendations for Dekton® 8 mm on EIFS systems

Basic instructions

DEKTON®
designed by COSENTINO

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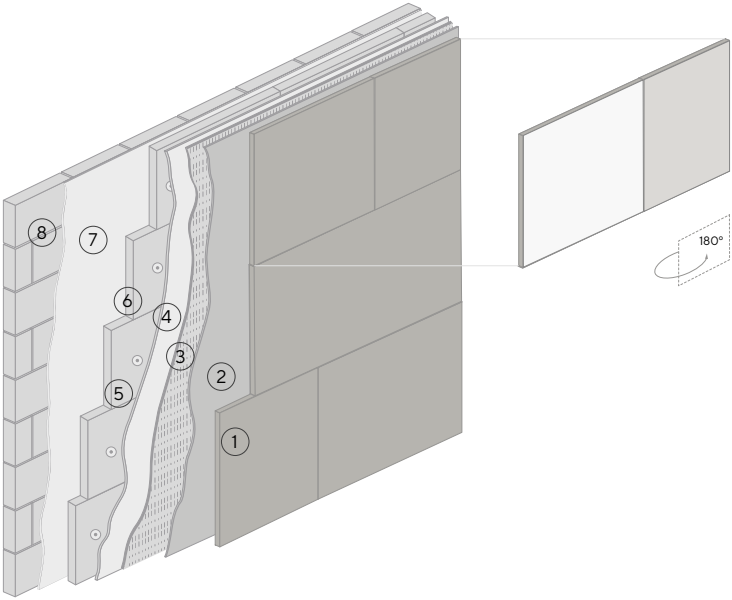
Objective

Define the limits of use of Dekton® 8 mm with EIFS systems.



Basic system components:

1. Dekton® 8 mm.
2. Cement-based adhesive.
3. Reinforcing mesh.
4. Finishing mortar.
5. Mechanical fixing.
6. Insulation.
7. Bonding mortar.
8. Supporting wall.

Limits on use

Maximum format

Depending on the manufacturer, different maximum possible formats are included:

- WeberTherm Ceramic Plus: Maximum surface = 0.24 m^2 / Larger side 60 cm / Length to width ratio < 3 / Maximum weight = 25 Kg/m^2. E.g. 600 x 400 mm.
- Propam Aister Ceram: Maximum surface = 0.36 m^2 / Larger side 90 cm / Maximum weight = 33 Kg/m^2. E.g. 900 x 400 mm.
- Baumit Ceramic System EPS: Maximum surface = 0.36 m^2 / Larger side 60 cm / Maximum weight = 25 Kg/m^2. E.g. 600 x 400 mm.
- Traditerm Ceramic: Maximum surface = 0.09 m^2 / Larger side 30 cm / Length to width ratio < 3 / Maximum weight = 22 Kg/m^2. E.g. 300 x 300 mm.
- Mapetherm Tile System: Maximum surface = 0.09 m^2 / Larger side 30 cm / Length to width ratio < 3 / Maximum weight = 22 Kg/m^2. E.g. 300 x 300 mm.
- STOtherm Vario Ceramic: Maximum surface = 0.09 m^2. E.g. 300 x 300 mm.

These maximum formats are indicative and based on public documentation from each manufacturer. This information should be verified at the beginning of the project to see if there are any modifications.

Available colours

Colours available in 8mm from the Dekton® collection, except for dark colours with a reflection index less than 30 %:
Milar, Keranium, Radium, Bromo, Laos, Fossil, Feroe, Baltic, Eter, Laurent, Kelya, Sirius, Trilium and Domoos.

Joints

- Minimum **grout joint** of 5 mm between panels.
- **Expansion joints** width of 8 mm in panels of maximum 6 x 6 m.
- Perimeter **movement joint** of, at least, 8 mm where it meets with perpendicular walls or with floors and horizontal elements (e.g. eaves, cantilevers, balconies...).
- **Structural movement joint**, which will be respected by the cladding both in its location and in its sizing.

Mechanical safety fixing

As regards the need for a mechanical safety anchoring, section 7.10.4.2 of the UNE 138002 standard on the installation of ceramic tiles, states:

...in view of the technical functions, environmental conditions and safety risks associated with the possible detachment of tiles, additional precautions and measures shall be established for façades, in addition to those set out in this standard...

It is advisable for the planner to draw up a comprehensive project with detailed measurements showing the cutting, required materials, laying plans, construction details and specifications of the component products.

In the case of tiles whose longest side is greater than 30 cm, the planner must assess the need for an additional mechanical safety anchoring (R2m system), while taking into account the specific conditions of environmental exposure, the quality of the substrate and its dimensional stability, and the design of the grout and movement joints.

Installation of Dekton® 8 mm

The installation of Dekton® on EIFS system should be carried out according to the supplier's instructions, taking into account a cladding of about 20 Kg/m^2.

This is a reinforcement of the standard EIFS system with plaster designed to increase its mechanical resistance to compression and traction in order to support the weight and thermal expansions generated by the cladding.

This reinforcement usually includes a greater number of mechanical fixings of the insulation and reinforcement of the finishing layer of the EIFS system through the use of stronger mesh, additional layers or the use of plasterings of greater performance.

The intervention of a technician is necessary to size the system according to the regulations concerning the thermal efficiency of the building.

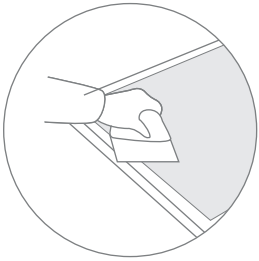
The complete Dekton solution on EIFS system must be validated by the supplier according to the specific conditions of the construction site. They shall be complete and guaranteed systems including the adhesive for Dekton 8 mm cladding, which shall be at least type C2S1 for pieces under 70 cm length and C2S2 for greater pieces.

The installation of Dekton 8 mm on EIFS system will be carried out bearing in mind the conditions of the construction site and the characteristics of the adhesive: open time, lifetime, maximum application thickness...

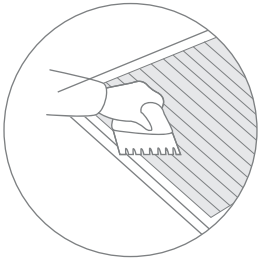
Installation should be carried out in accordance with the following recommendations:

1 Double gluing

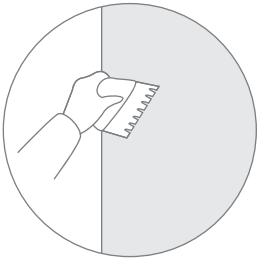
Installation is carried out according to the technique of double gluing (adhesive on the piece and on the substrate), which ensures perfect adherence and prevents gaps from forming. The adhesive is first spread on the substrate with the smooth side of the trowel, then combed with the toothed side, parallel to the short side of the piece. Never apply the adhesive by “sticking” or “pinching”.



Application diagram with trowel



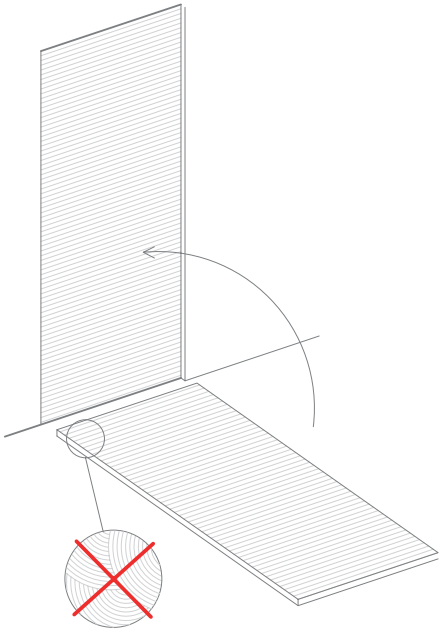
Application diagram with toothed trowel on the piece



Application diagram with toothed trowel on the wall

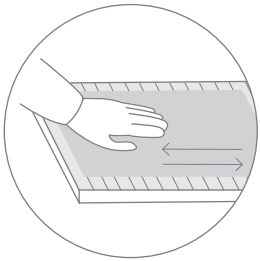
2 Toothed trowel

Apply the adhesive using a toothed trowel of 8 x 8 on the substrate and a flat trowel on the piece. Apply in parallel lines to the short side of the Dekton® piece.



3 Sliding movement

In order to facilitate the release of air and better contact between piece and substrate, whenever possible make a reversible sliding movement: place it in its final position, then move it perpendicular to the adhesive lines in proportion to the width of the trowel tooth and finally put it back in its final position, respecting the width of the joint.



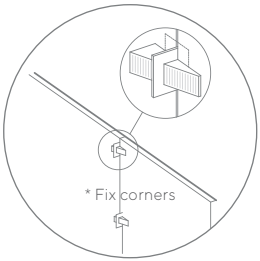
In any case, it is advisable to flatten the piece to facilitate air release and ensure adhesion between the different parts (Dekton®/Adhesive/Substrate).

4 Use of spacers

The use of spacers and micro-bevelled edges are recommended in order to comply with the stipulated joint width.

5 Auxiliary systems

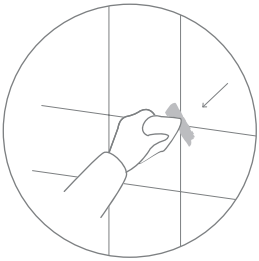
The use of auxiliary systems to improve the final levelling of the cladding is recommended, such as levelling wedges, ensuring regular thickness of the adhesive layer of at least 3 mm.



6 Grouting material

Use an appropiate grout for joints and apply according to the manufacturer's instructions. It is recommended to apply the adhesive in the joint to allow sufficient mortar to penetrate. It is advisable to use a rubber trowel of the appropiate hardness to the width of the joint to spread the material diagonally to the direction of the joints. The final texture and curvature will be set on the joint using a pointing trowel or equivalent tool. In some cases, flexible stainless steel spatulas or extrusion guns can be used to apply the grout.

Tilt the rubber trowel 45 degrees



The cleaning process should start when the grout loses its sheen, early in the setting process.

Application, cutting and handling tools for Dekton® 8 mm

Cosentino® can supply the material cut to size for the project or it can be cut on site with the recommended tools and accessories.

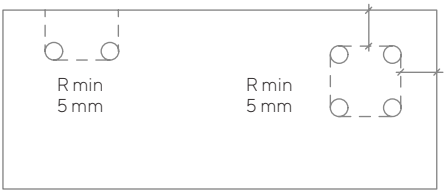
Dekton® 8 mm is easy to cut on site with any dry cutting system for large format pieces available on the market.

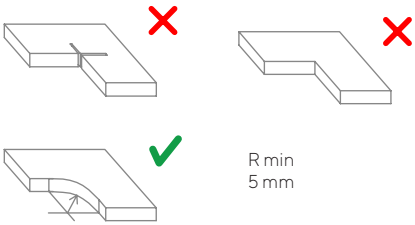
This requires a suitable cutting table and tool and the use of polishing blocks to micro-bevel the edge and remove all burrs from the cut.

It can also be cut with a circular saw fitted with the recommended blade, always with water supply.

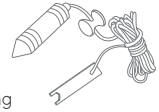
In general, L-shaped or U-shaped cuts are not recommended, especially when the thinness of any of the resulting arms may lead to breakage.

To create recesses and corner joints, it is recommended to pre-drill a hole with a radius of at least 5 mm for edge smoothing and subsequent cutting with the recommended cutting system.

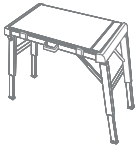




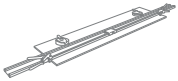
Some common tools for the installation of Dekton® 8 mm are:



Levelling system

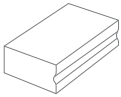


Work bench



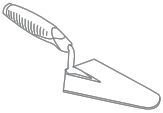
Parting cut

Approved disc and drill bit



Polishing block

Mixer

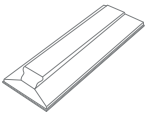


Mixing trowel

Toothed trowel

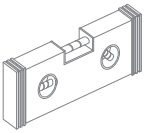
Plastic trug

Levelling kit

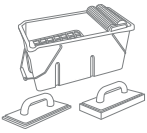


Finishing trowel

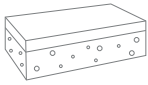
Suction cup



Spirit level



Grouting kit



Cleaning sponge

Maintenance and cleaning

After the installation of Dekton®, the surface usually has residues such as small traces of cement, limescale, silicone, epoxy...

It is therefore necessary to do a final clean that will leave the Dekton® surface clean without damaging the grout.

There are specific products on the market containing acidic solutions to remove cement, epoxy, etc. It is advisable to use the recommended cleaning products and apply them according to the manufacturer's recommendation.

For maintenance, wet cleaning with a neutral detergent with a high cleaning power is recommended, avoiding the use of acid and abrasive products.

For more information, see our manual: "Dekton® Ultracompact Surfaces. Façade Cleaning and Maintenance Manual".

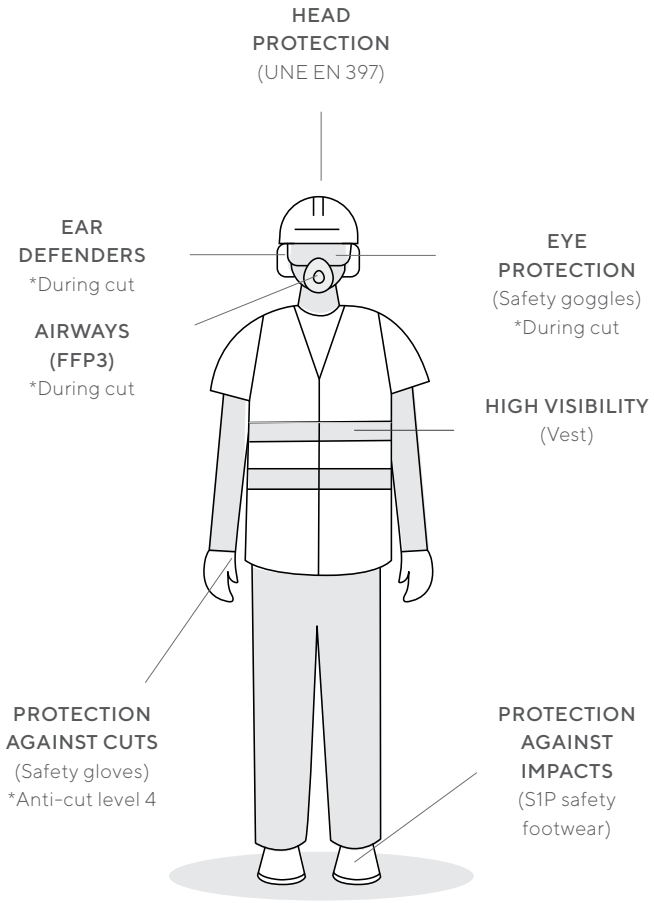
Health and safety

Risks associated with handling and transport

Operators and fitters dealing with Dekton® must comply with all laws and regulations relating occupational health and safety at workplaces, as well as the information contained in this Guide. During transport and handling of Dekton® materials, risks such as bumps, cuts, musculoskeletal disorders, entrapment or blast injuries can occur due to incorrect handling. Always follow the safety instructions contained in this Guide.

Risks associated with manufacturing and transformation

The manufacturing process involve risks such as cuts, blast injuries, entrapment, exposure to high noise levels and exposure to chemicals such as free crystalline silica dust. For more information about these risks and the measures to prevent them, consult the Safety Information Sheet as well as the Best Practice Guide that Cosentino® has published. If you do not have this information, please ask your supplier.


HEAD PROTECTION
(UNE EN 397)
EAR DEFENDERS
*During cut
AIRWAYS (FFP3)
*During cut
EYE PROTECTION
(Safety goggles)
*During cut
HIGH VISIBILITY
(Vest)
PROTECTION AGAINST CUTS
(Safety gloves)
*Anti-cut level 4
PROTECTION AGAINST IMPACTS
(S1P safety footwear)

The instructions contained in this document and related advice are for information purposes only and may not reflect all situations encountered in a project. Before starting a construction project, all Dekton® installation areas will be checked in accordance with this manual, regulations, good construction installation practices and supplier instructions.

Cosentino® may not be held responsible for the material supplied if it has not been installed according to the guidelines in this manual. For questions or additional information, please visit the website www.dekton.com or contact Cosentino®, S.A.

COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =
= ISO 14001 =

* Find information on NSF-certified colours at www.nsf.org

A product designed by **COSENTINO**®

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