

COSENTINO®

Types of Fixing

DKT3



DEKTON®

Subframe and Fixing Systems

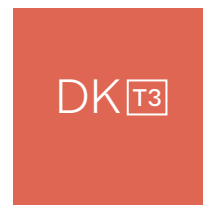
Index of fixing system



DKT1
Hidden mechanical fixing using undercut screws on the reverse side of the piece.



DKT2
Hidden mechanical fixing with metallic profile on the continuous groove on the edge of the piece.



DKT3
Hidden mechanical fixing with clips at intervals along the groove on the edge of the piece.



DKT4
Mechanical fixing using visible clips to hold the pieces.



DKBG
Mixed fixing (mechanical plus chemical) hidden in the groove on the reverse side of the piece



DKC
Chemical structural fixing of pieces onto profiles.



DKB
Pieces are fixed directly to supporting wall using mainly cement based adhesives.



DKS
Fixing of pieces onto an external thermal insulation system (ETIS)

Tabacalera apartment building, A Coruña, Spain



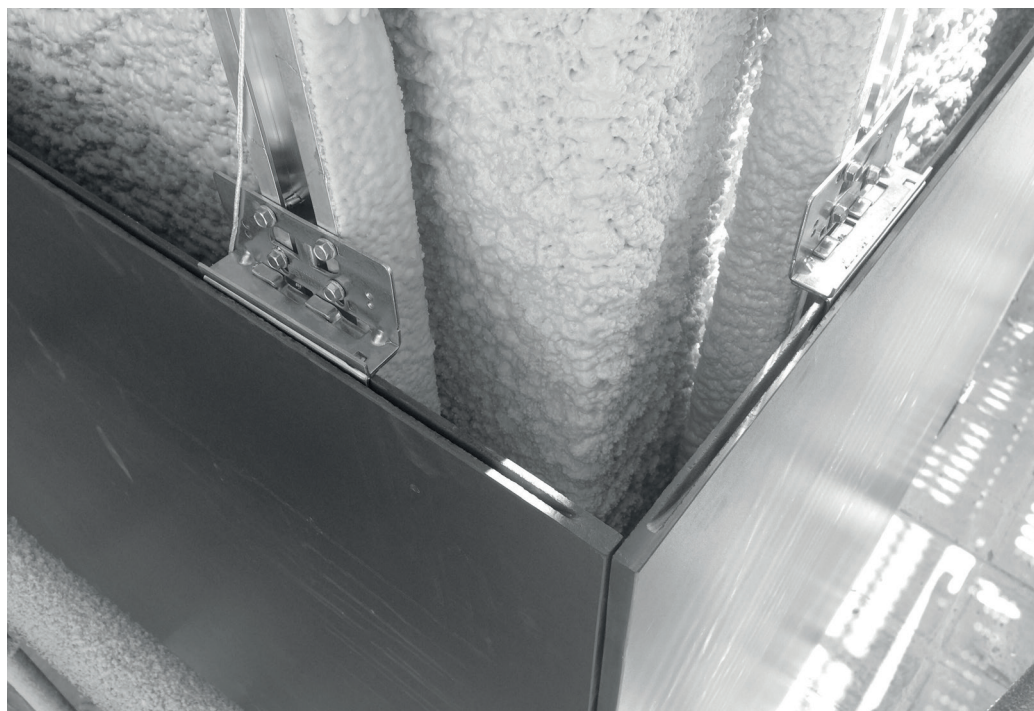
DK T3

Edge Grooving and Spot clips

In the DKT3 system, pieces are fastened to the profile by hidden clips that are inserted at intervals along a continuous groove at the edge of the piece, which can end at 3 cm at each extreme, thereby improving the aesthetics and functionality of the lateral pieces. This system is fairly flexible, although there are certain dimensional limits, as the maximum a piece can be for

12mm thickness is 70cm vertical and 100cm for 20mm thickness.

In cases that require a greater dimension on the vertical section, 30mm thickness should be used to counteract fatigue on the grooved part of the material from the anchoring.

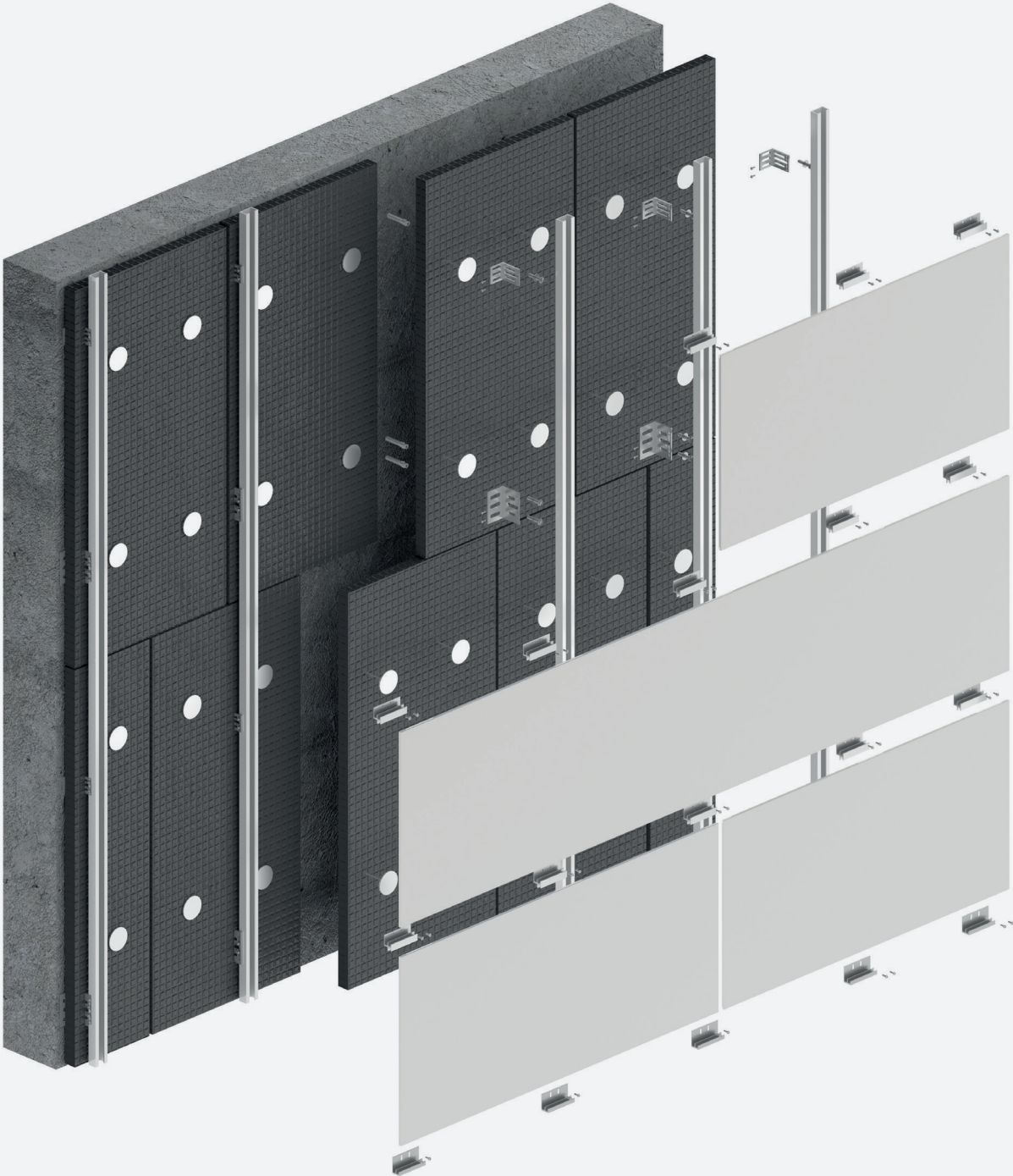


Dekton® has the certification for ventilated façades according to ETA 14/0413 and BBA 16/5346 for 12mm and 20mm thicknesses, although it can be used for other non-certified thicknesses.

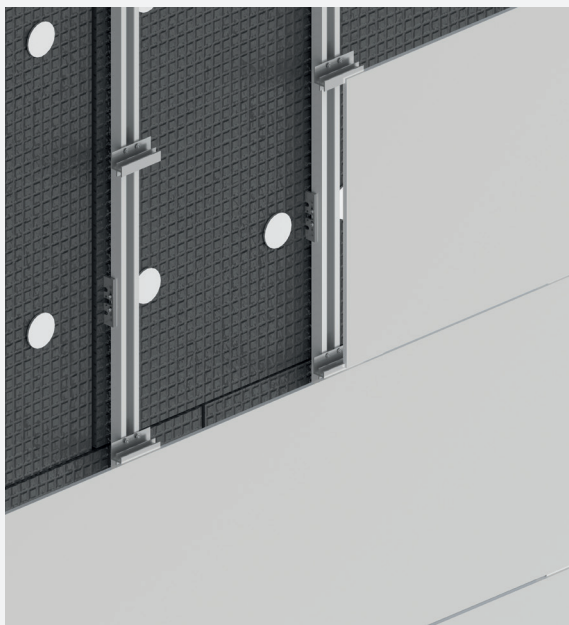
Hidden mechanical fixing
with clips at intervals
along the groove on the
edge of the piece.



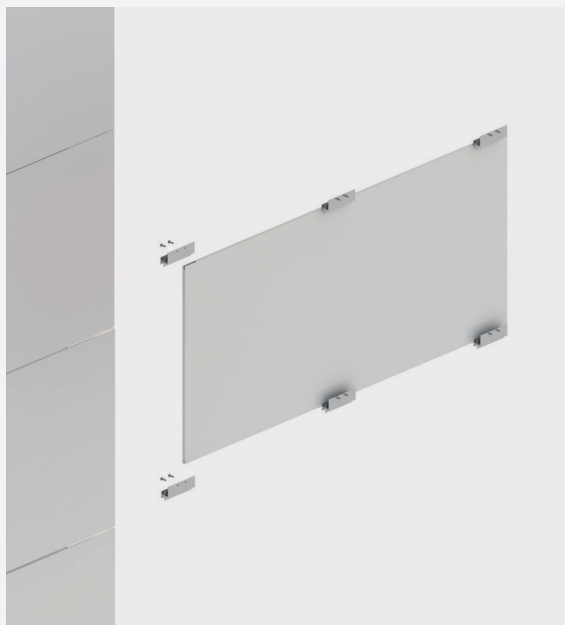
DKT3 - Diagram



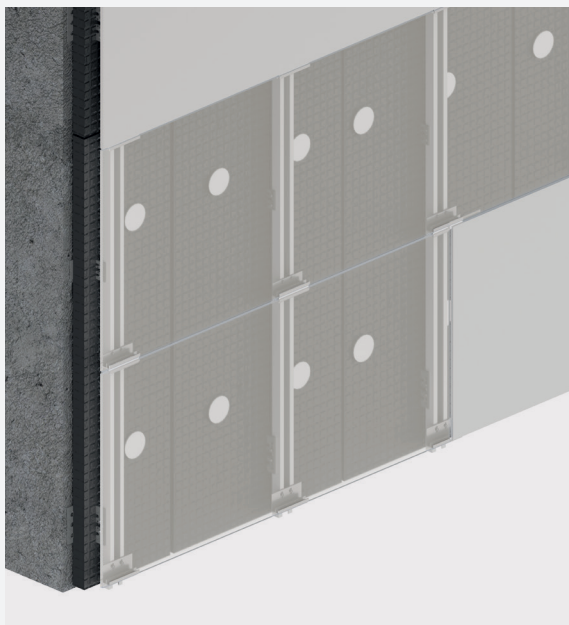
Joints



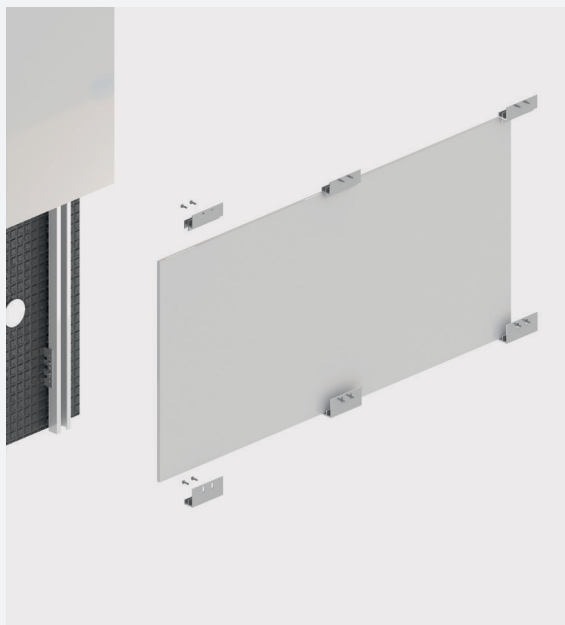
Middle clips



Bottom clips



Bottom clips detail



Note: The following fixing configurations are based only on Dekton material resistance; the number and dimensions of the clips or profiles needed should be defined by the system supplier.

DKT3 Structure

DKT3 - Structure



General fixing instructions

1. Define the layout and position of the clips over the vertical substructure.
2. In some clip systems, a spring is installed into the vertical profiles before fixing the clips, in order to avoid looseness between the Dekton® piece and vertical profiles.
3. Screw the bottom clips to the vertical profiles.
4. Place the Dekton® piece with grooved edges laying on the clips, that will support the piece weight.
5. Repeat the process by placing another piece over the installed clips and fixing with upper clips.
6. Finish with the top pieces. Installing a top-end clip with a slotted hole and screw them to the vertical profile. Insert the clips into the top groove of the panel by adjusting its position vertically.
7. Maximum cantilever distance of horizontal rails must be defined by the system supplier.

Installation sequence from one side to another and from bottom to top

Fig. 1

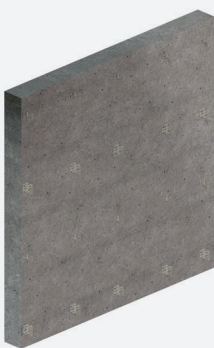


Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



DKT3 System Description

Hidden system

Supporting substructure made up of; metal brackets, adjustable to correct unevenness and compatible with different types of supports, can include thermal break insulators; vertical metal profiles of different sections according to the application required; horizontal metal profiles or H-Carrier/Rail or J-Carrier/Rail type clips; hidden anchoring system by means of continuous grooving in the Dekton Panel for fixing by insertion.

Installation process

Brackets installed on the surface to be covered by means of a mechanical or welding system; vertical profiles installed on brackets with a regulation and fixing system, by means of specific screws*; specific horizontal profiles or H-Carrier/Rail or J-Carrier/Rail clip with a regulation and fastening system, installed by means of specific screws* on vertical profiles; Installation of the lower edge of the Dekton® panel on a point profile or H-Carrier/Rail or J-Carrier/Rail clip; installation of the locking device on the upper part, point profile or H-Carrier/Rail or J-Carrier/Rail clip.

*Specific screws according to the structural calculation of each project or indicated by the supplier of the substructure.

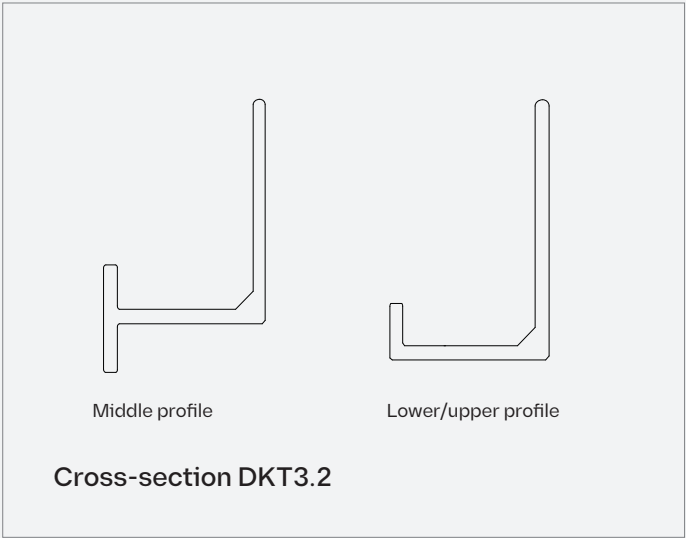
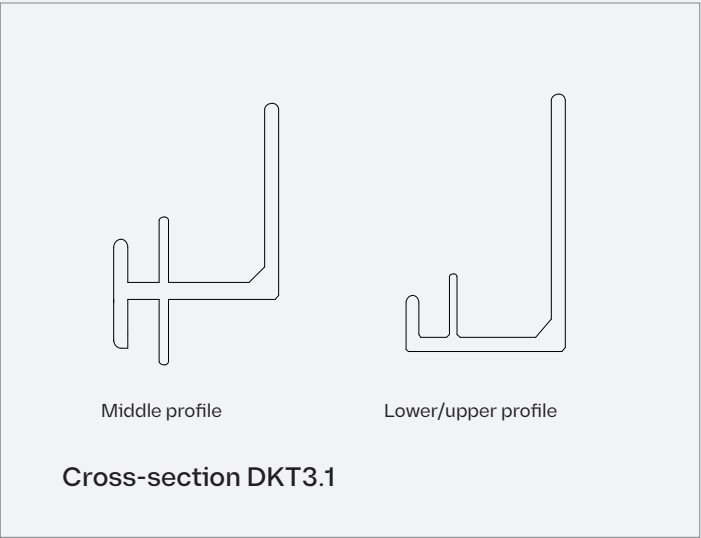
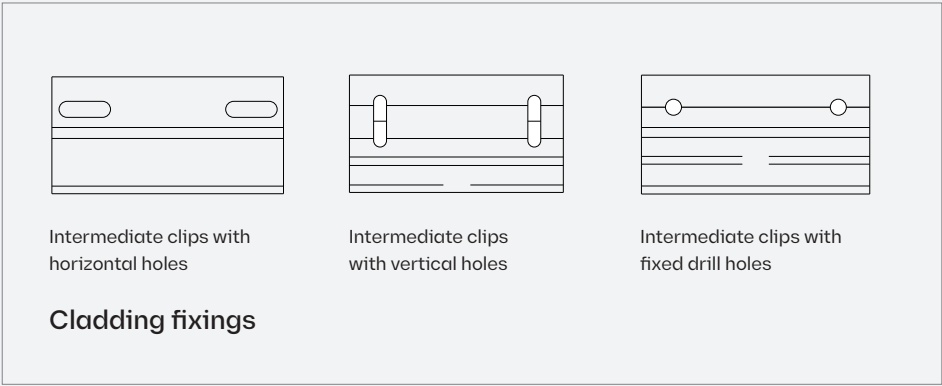
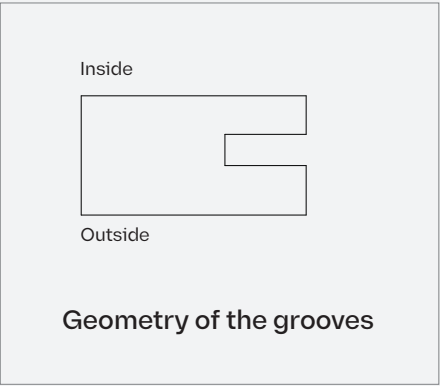
The minimum width of the grooves is 3mm, and the depth of grooving typically goes from 10mm to 15mm. Groove dimensions need to be defined for each project according to the Dekton thickness chosen and the project static calculations.

Cutting and machining

At the Cosentino Factory all slabs can be cut and machined following project drawings and delivered to site in the desired order.

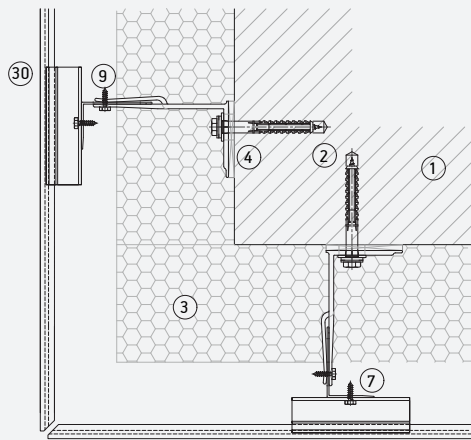
Please consult with the Project Service Unit department for special project requirements.

Grooves can be made following provided project details and static calculations.

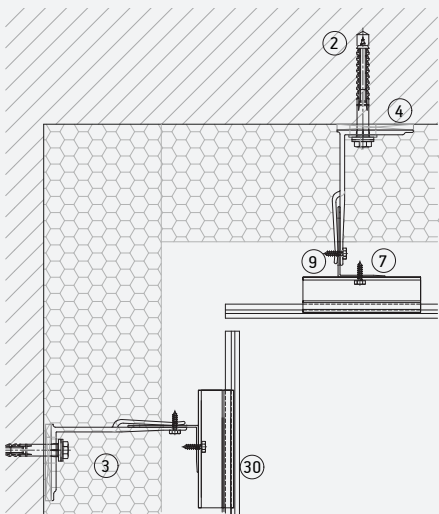


DKT3 Horizontal section

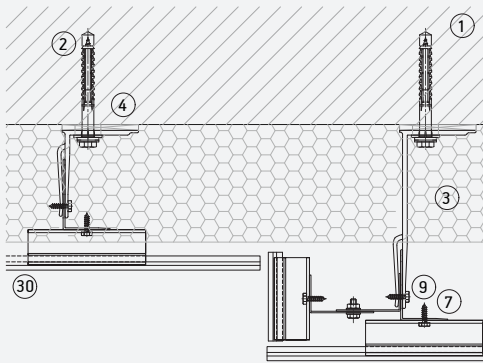
Mitered external corner



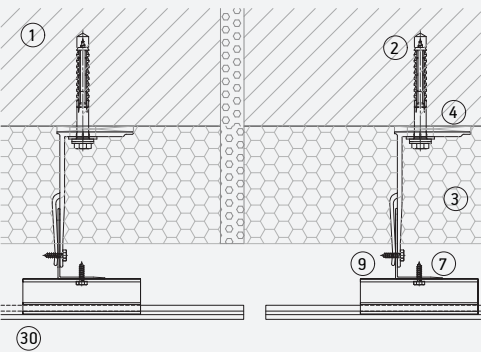
Internal Corner



Vertical joint



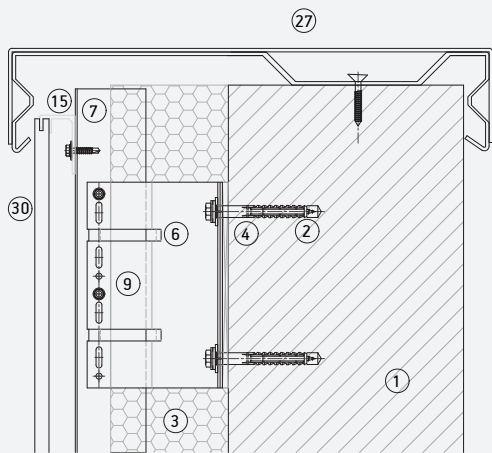
Vertical expansion joint



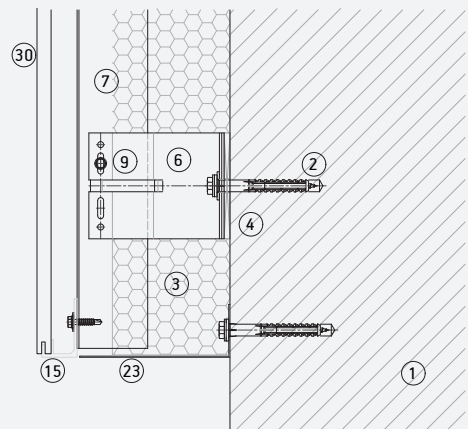
- | | | | |
|------------------------|-------------------------------------|--------------------------------|----------------------|
| 1. Supporting wall. | 10. Rivet. | 17. Bottom/top visible clip. | 26. Window sill |
| 2. Anchor bracket. | 11. Undercut anchor. | 18. Intermediate visible clip. | 27. Top coping |
| 3. Insulation. | 12. Horizontal rail. | 19. Interior back clip | 28. Corner profile |
| 4. Insulating layer. | 13. C hanger. | 20. Exterior back profile | 29. Bonding adhesive |
| 5. Fixed bracket. | 14. Adjustable C hanger. | 21. Chemical fixing system | 30. Dekton |
| 6. Adjustable bracket. | 15. Bottom/top edge profile/clip. | 22. Security fixing | |
| 7. L profile. | 16. Intermediate edge profile/clip. | 23. Ventilation profile | |
| 8. T profile. | | 24. Lintel | |
| 9. Self tapping screw. | | 25. Jamb | |

DKT3 Vertical section

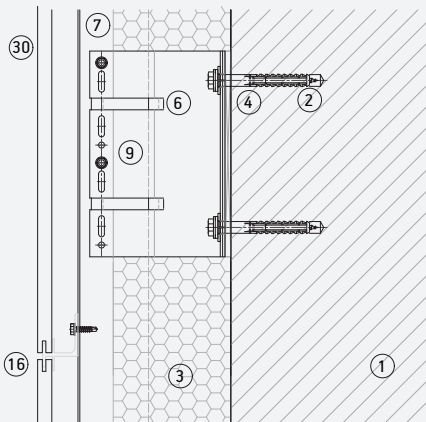
Upper detail



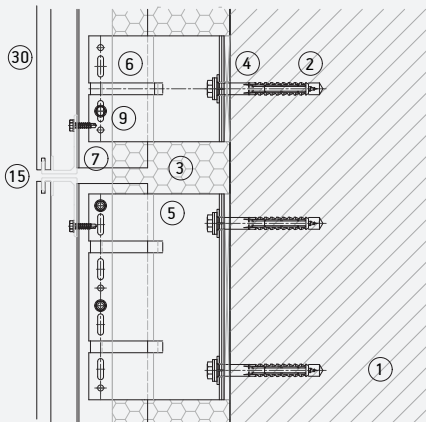
Bottom detail



Horizontal joint



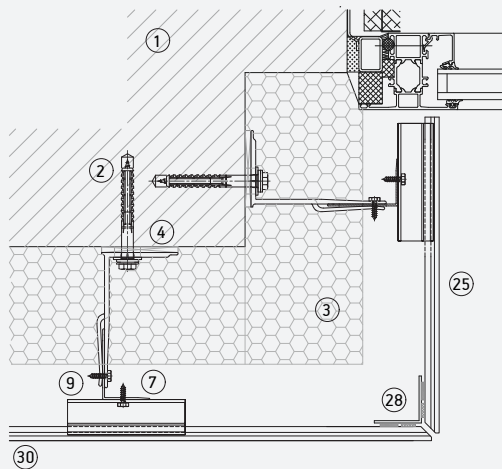
Joint between profiles



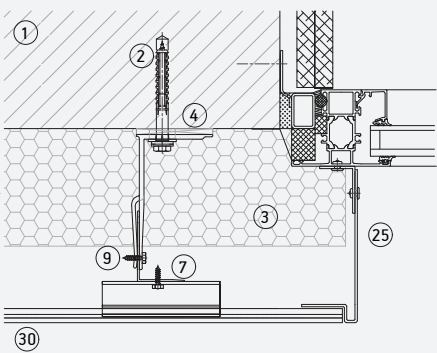
- 1. Supporting wall.
- 2. Anchor bracket.
- 3. Insulation.
- 4. Insulating layer.
- 5. Fixed bracket.
- 6. Adjustable bracket.
- 7. L profile.
- 8. T profile.
- 9. Self tapping screw.
- 10. Rivet.
- 11. Undercut anchor.
- 12. Horizontal rail.
- 13. C hanger.
- 14. Adjustable C hanger.
- 15. Bottom/top edge profile/clip.
- 16. Intermediate edge profile/clip.
- 17. Bottom/top visible clip.
- 18. Intermediate visible clip.
- 19. Interior back clip
- 20. Exterior back profile
- 21. Chemical fixing system
- 22. Security fixing
- 23. Ventilation profile
- 24. Lintel
- 25. Jamb
- 26. Window sill
- 27. Top coping
- 28. Corner profile
- 29. Bonding adhesive
- 30. Dekton

DKT3 Vertical section

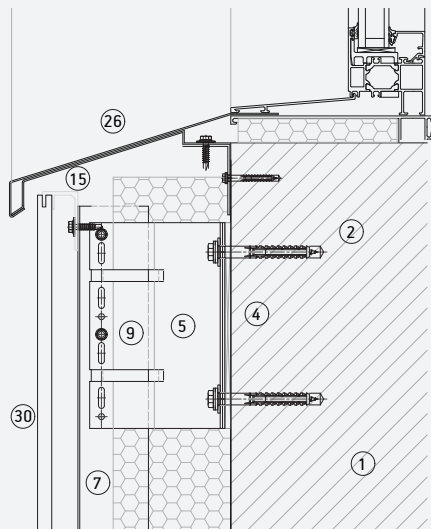
Dekton jamb



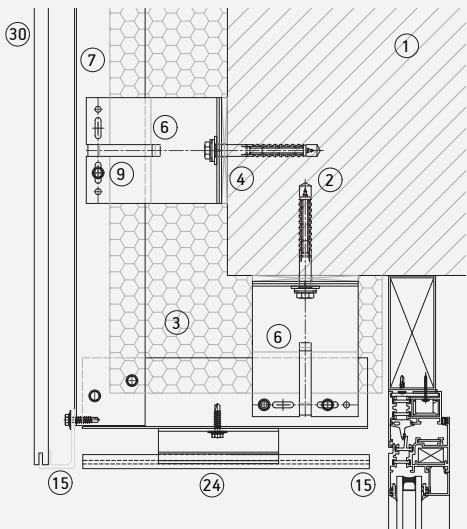
Metallic jamb



Metallic window sill

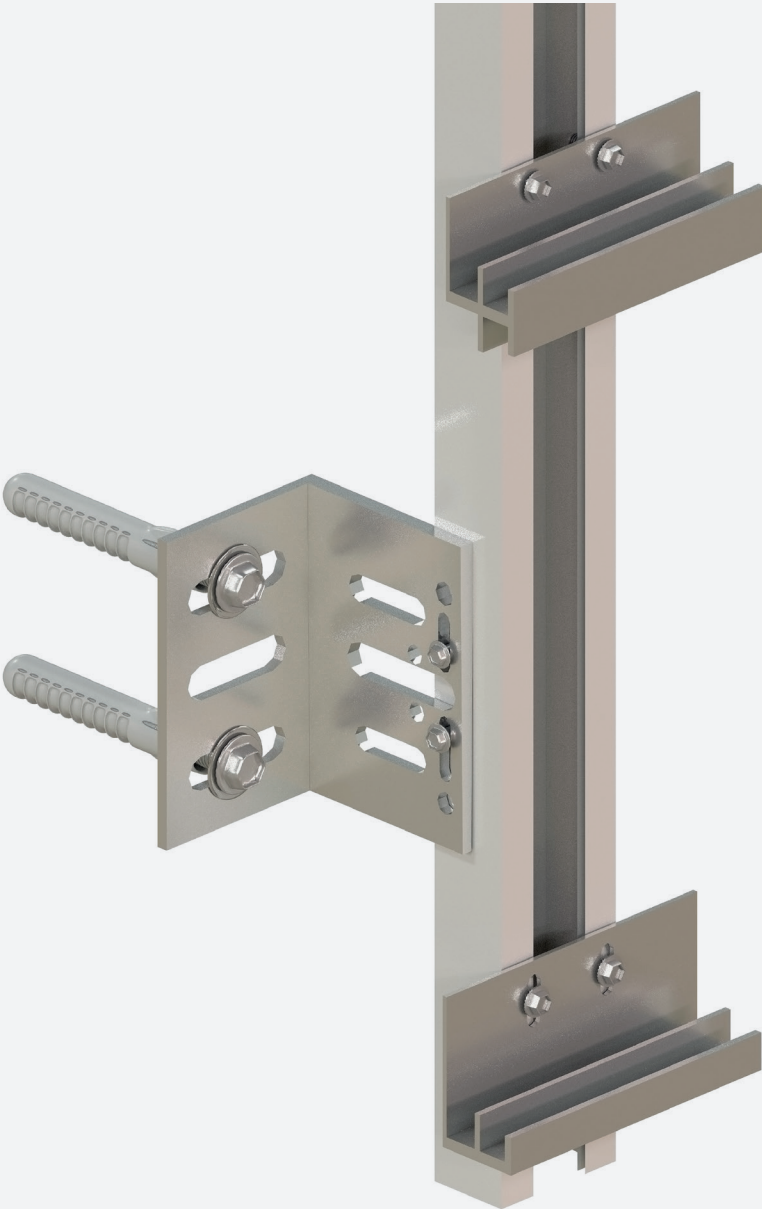


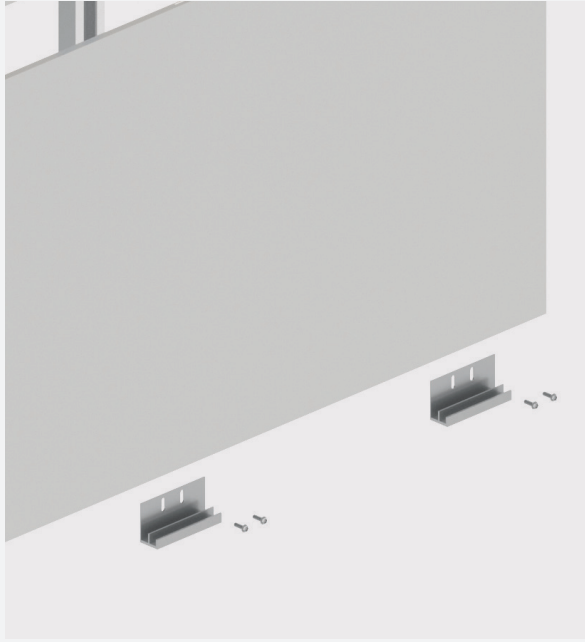
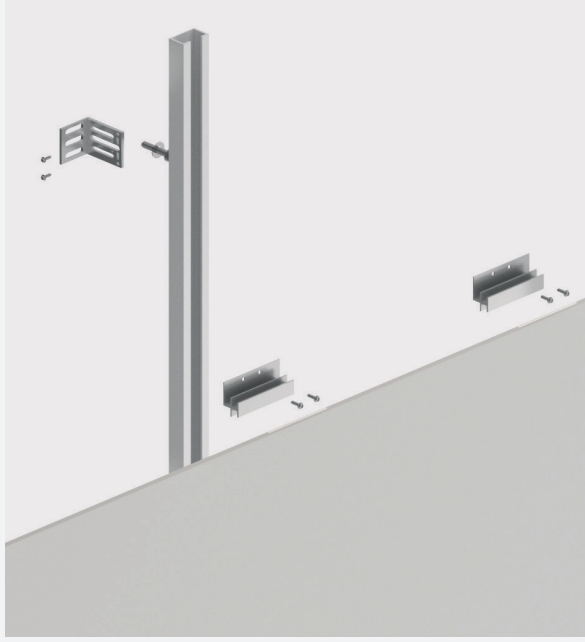
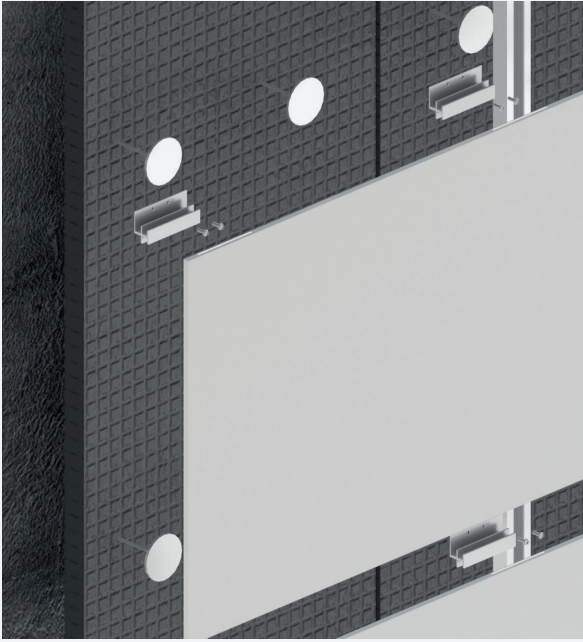
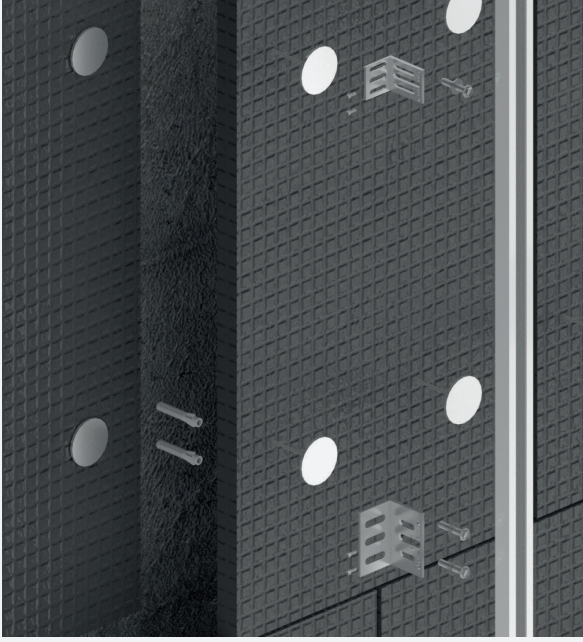
Dekton lintel



- | | | | |
|------------------------|-------------------------------------|--------------------------------|----------------------|
| 1. Supporting wall. | 10. Rivet. | 17. Bottom/top visible clip. | 26. Window sill |
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| 8. T profile. | | 24. Lintel | |
| 9. Self tapping screw. | | 25. Jamb | |

DKT3 System





DKT3 Static Calculations

Schemes and data to de defined with SDP software

Panels in horizontal or vertical layout. Maximum wind loads shown in the following configurations depend on the grid spacing and distance from drill holes to the edges.

These configurations have been calculated considering a distance of fixing to edges of 200mm. For further distances and configurations please consult with our Technical Department.

The tables and diagrams presented are based on Dekton calculation software and refer only to Dekton. They cannot be considered as definitive data for on-site installation and it is necessary for a qualified technician

to make a specific project calculation for the entire façade system including support anchors, brackets, profiles, screws and Dekton fixing elements to the façade

How to use the reference configurations:

- Determine the design wind load kN/m².
- Choose the table according to the fixing system and Dekton thickness.
- Select the closest design wind load. The wind load chosen should not be less than actual requirements.
- Select a reference configuration showing maximum spacing between fixings.

DKT3

Dekton 12mm

Complete configuration table

Design wind load kN/m²	Horizontal	Spacing between top/ bottom clips (mm)	Spacing between clips (mm)
2	H1	1440	450

Dekton 20mm

Complete configuration table

Design wind load kN/m²	Horizontal	Spacing between top/ bottom clips (mm)	Spacing between clips (mm)
2.8	H1	1440	450

DKT3 Layout

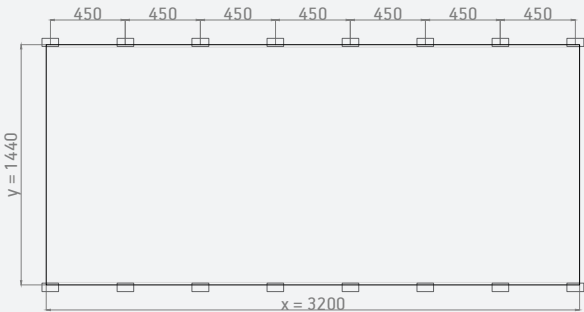
Design wind loads to be compared with reference design wind loads provided in this document should have applied wind load factors on characteristic values per applicable standards and regulations.

Design wind loads and fixing distances should be calculated per local standards, regulations and certificates applicable, with further testing if required.

Cosentino does not provide static calculations for projects.

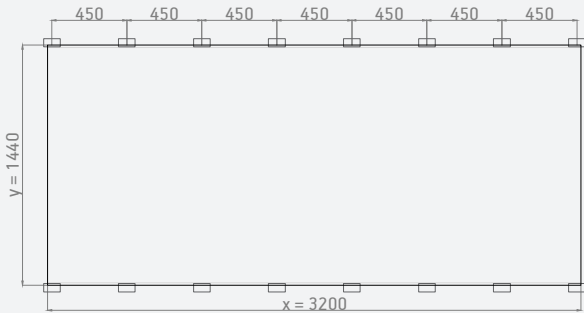
Cosentino will not accept any liability whatsoever for any direct or indirect damage resulting from any errors, omissions or miscalculations of the static calculations for the project.

12mm HORIZONTAL CONFIGURATION



H1. Max. Design wind load: 2.0 kN/m²

20mm HORIZONTAL CONFIGURATION



H1. Max. Design wind load: 2.8 kN/m²

CASE STUDY

Tabacalera Apartment Building

A Coruña, Spain

Material

Dekton® Sirius

Facade system

DKT3

Thickness

12mm





COSENTINO®

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* To obtain more information about colours with an NSF certificate please visit www.nsf.org

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