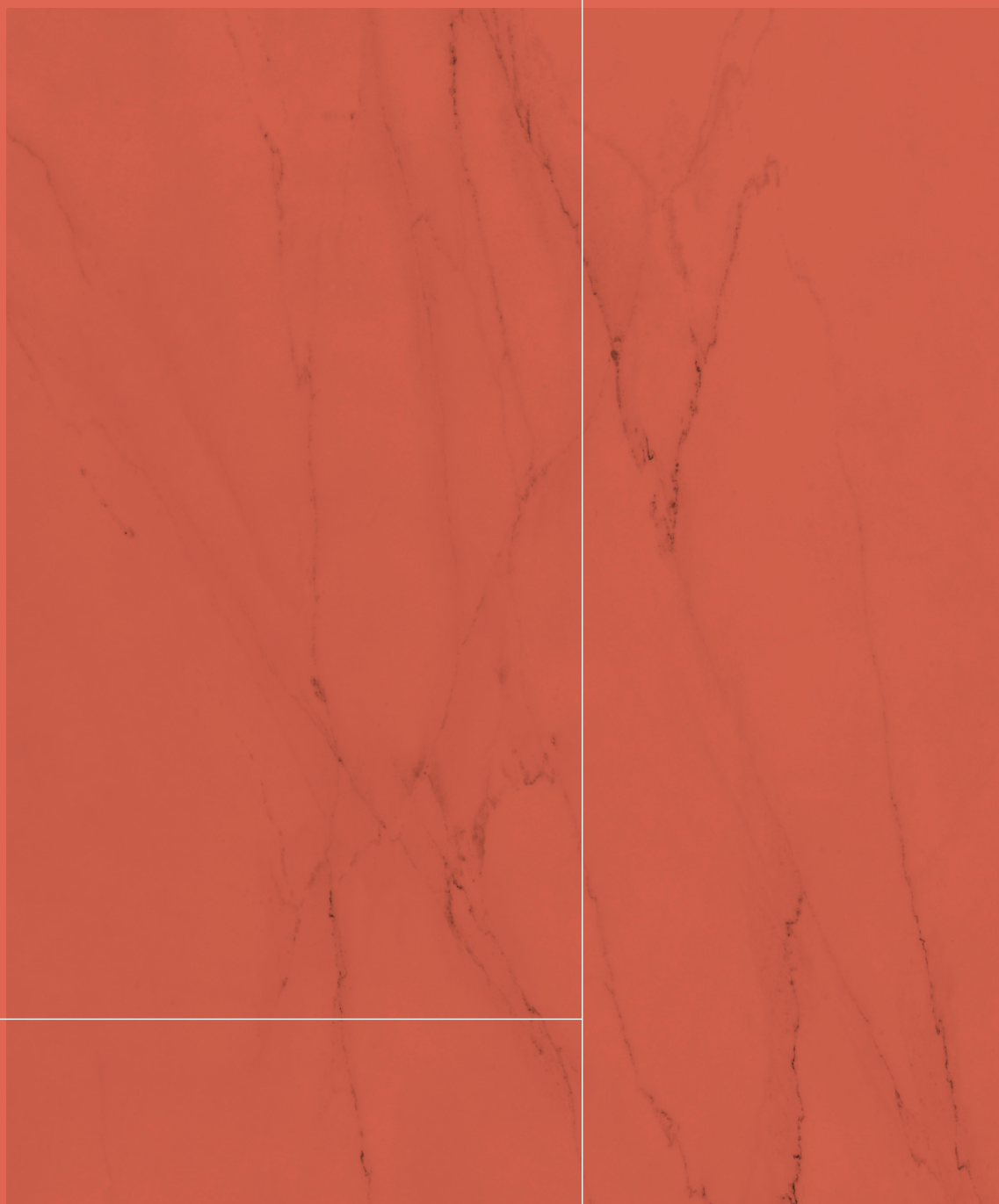


COSENTINO®

# Types of Fixing

# DKT2



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)



DKT2





DK T2

## Continuous Grooved Edge System

Projects with horizontal hierarchy. Some designs seek to achieve a very marked lineal frame, from spatial volume to the dimension of the construction details. The assembly as a design tool in these cases can be a major ally and help to realise this linear concept. This DKT2 system comprises of a horizontal profile that supports the face in a continuous way, all

based on a groove that runs the whole length of the piece.

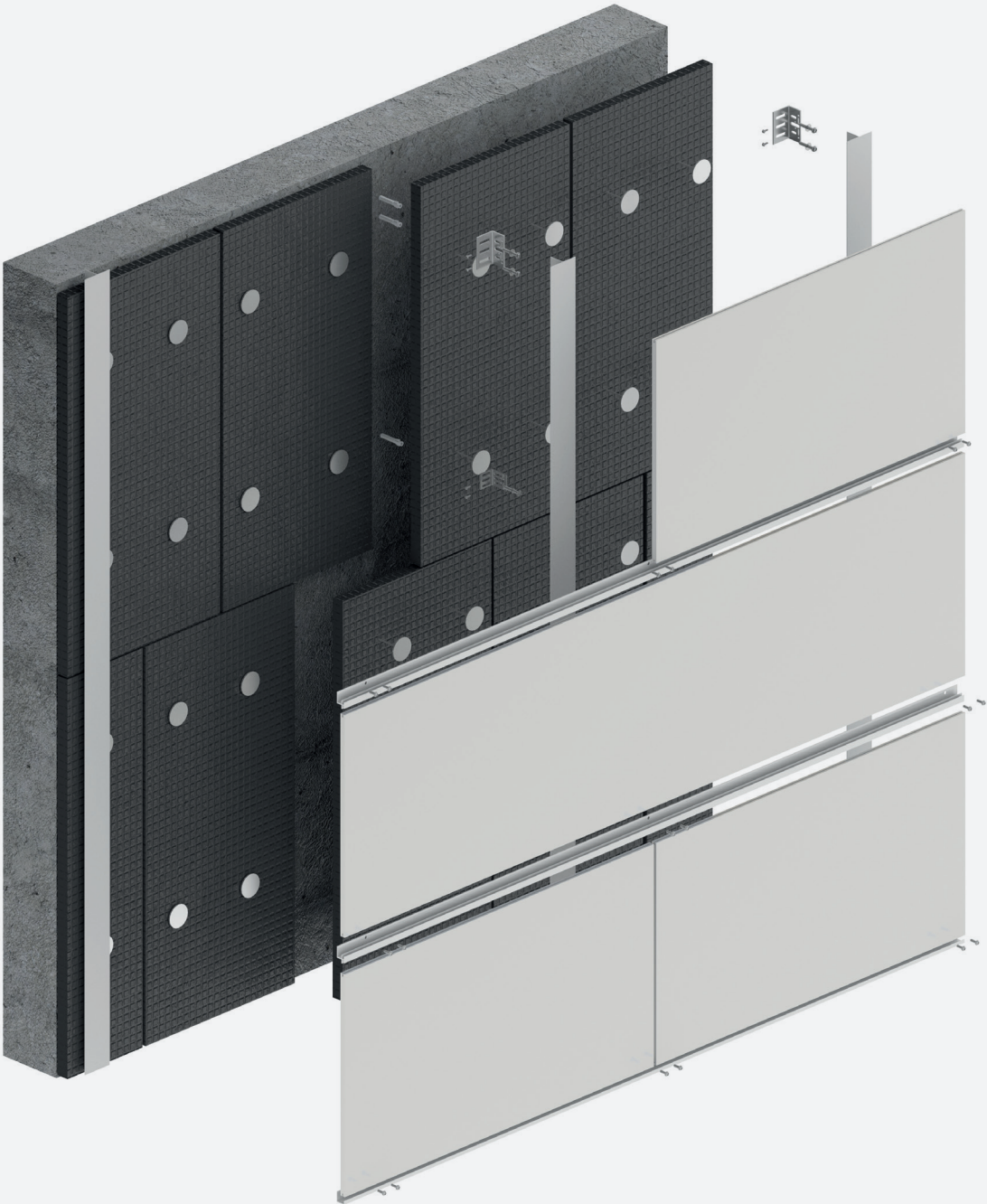
This solution creates an almost hermetic ventilated chamber, due to the continuity of the supporting profile itself. A groove of 3-4 mm minimum and with a depth of up to 10 mm is required to conceal the length-wise profile that is anchored to the uprights of the sub-structure.



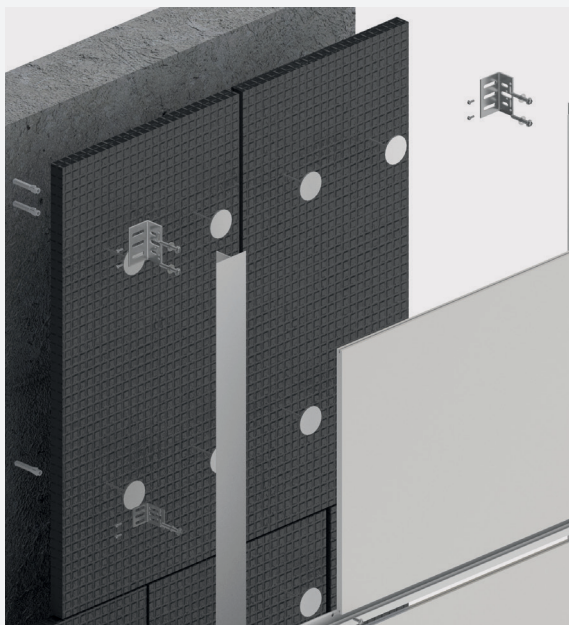
This solution creates an almost hermetic ventilated chamber, due to the continuity of the supporting profile itself. Dekton® has the certification for ventilated façades according to ETA 14/0413 and BBA 16/5346 for 12mm and 20mm thicknesses, although it can also be used with 30mm.

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





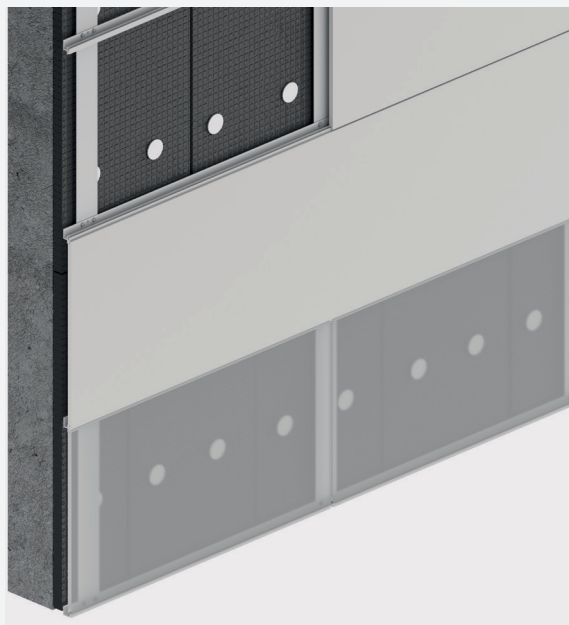
System detail



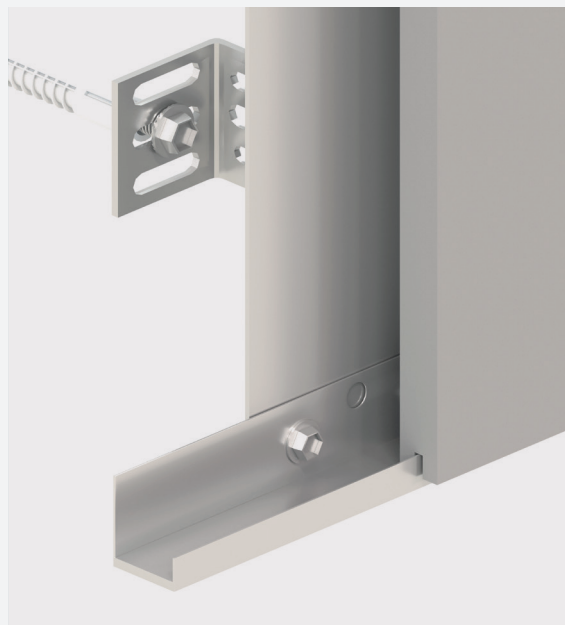
Middle profile detail



Bottom profile



Bottom profile detail



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



DKT2 Structure

DKT2 - Structure



## Secondary structure and general fixing instructions

1. Define the layout of the horizontal profiles over the vertical substructure.
2. Drill the vertical profile to fix the horizontal rails from bottom to top on the facade so the grooved edge Dekton® slab can be placed on it.
3. Place the horizontal rail over one piece, insert inside the top grooves of the piece. Level and fix it to the vertical profiles.
4. Enter the rest of the pieces from the row, using spacers to achieve the desired gap for vertical joints.
5. For some systems, the installation process may require installing first both bottom and top horizontal profiles. If so insert Dekton® pieces into the top groove first and then into the bottom profile.
6. Repeat the process for all rows until the top, installing a top-end profile on the top row pieces.
7. The 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

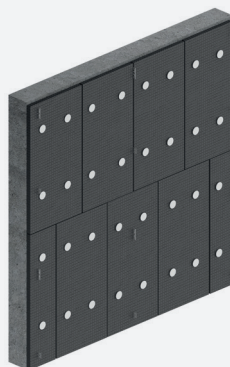


Fig. 3

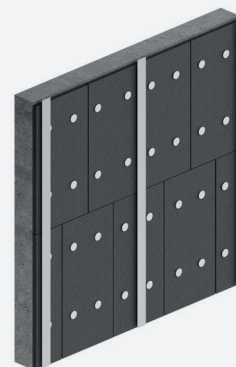


Fig. 4

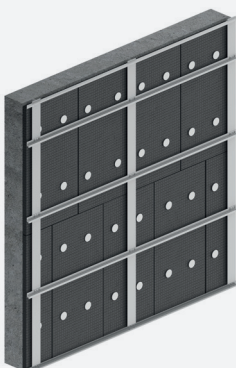


Fig. 5

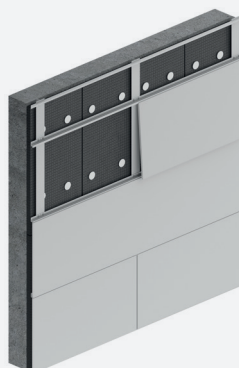
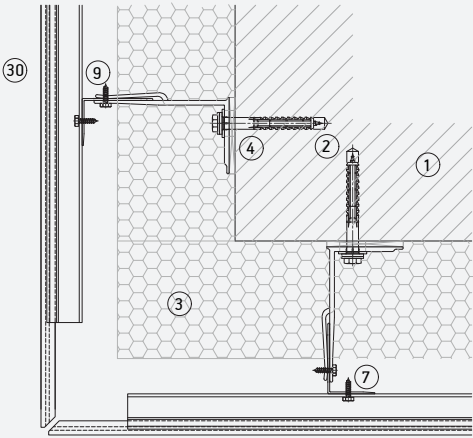


Fig. 6

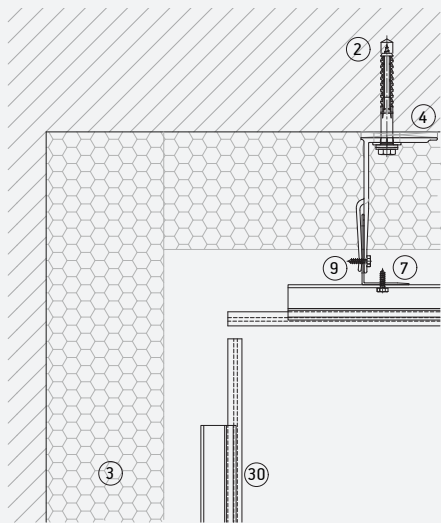


# DKT2 Horizontal section

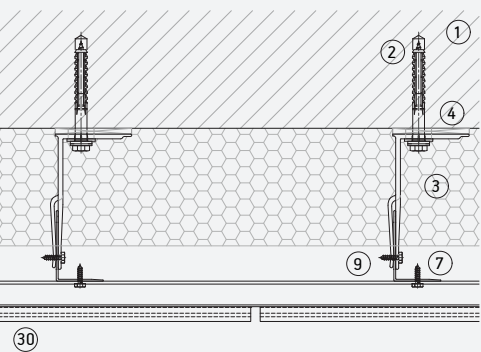
Mitered external corner



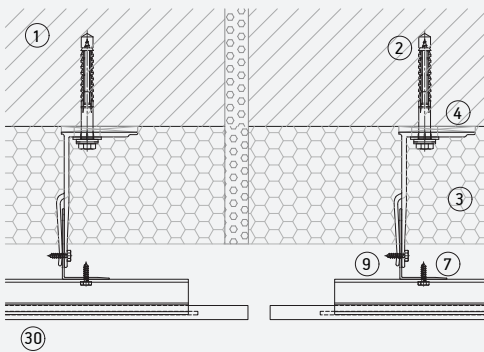
Internal Corner



Vertical joint



Vertical expansion joint

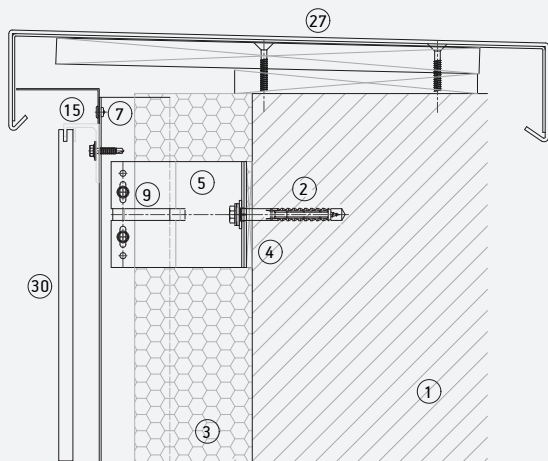


- |                        |                                     |                                 |                      |
|------------------------|-------------------------------------|---------------------------------|----------------------|
| 1. Supporting wall.    | 10. Rivet.                 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

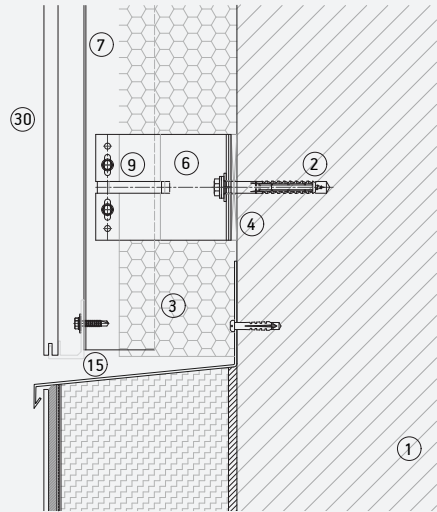


# DKT2 Vertical section

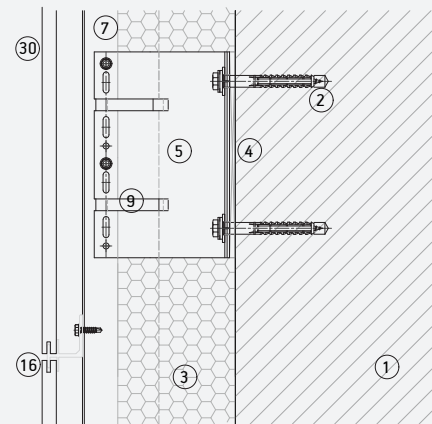
Upper detail



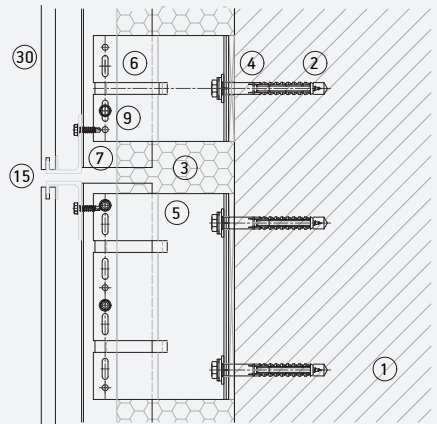
Bottom detail



Horiozntal joint



Joint between profiles



- |                        |                                     |                                 |                      |
|------------------------|-------------------------------------|---------------------------------|----------------------|
| 1. Supporting wall.    | 10. Rivet.                          | 17. Bottom/top visible clamp.   | 24. Lintel           |
| 2. Anchor bracket.     | 11. Undercut anchor.                | 18. Intermediate visible clamp. | 25. Jamb             |
| 3. Insulation.         | 12. Horizontal rail.                | 19. Interior back clamp         | 26. Window sill      |
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| 8. T profile.          |                                     |                                 |                      |
| 9. Self tapping screw. |                                     |                                 |                      |

## DKT2 System Description

### Hidden system

Supporting substructure made up of; metal brackets, adjustable for correction of unevenness compatible with different types of supports, can include thermal break insulator; vertical metal profiles of different sections according to the required application; continuous horizontal metal profiles type H-Carrier/Rail; hidden anchorage 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 system or welding; vertical profiles installed on brackets with a system of regulation and fixing, by means of specific screws\*; continuous horizontal H-Type profiles with a system of regulation and fixing, installed by means of specific screws\* on vertical profiles; positioning of the lower edge of the Dekton® panel on continuous H-Carrier/Rail profile; installation of the blocking device on the upper part, continuous H-Carrier/Rail profile.

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

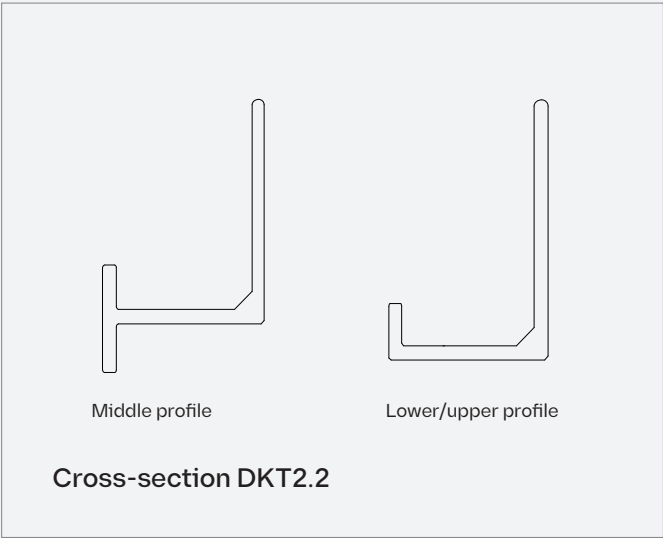
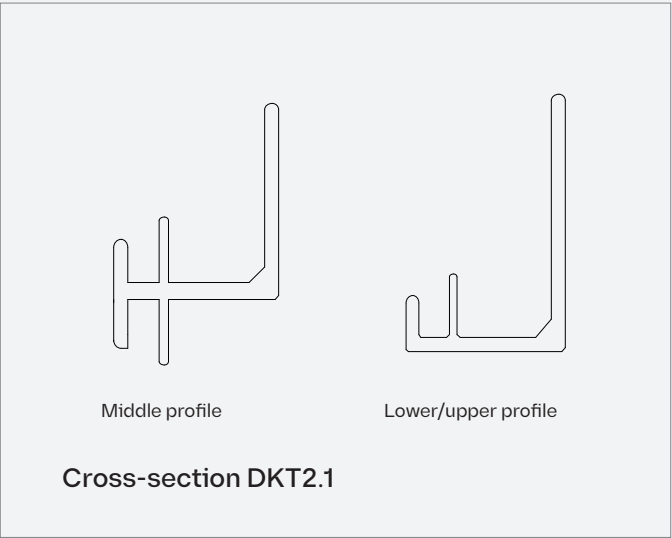
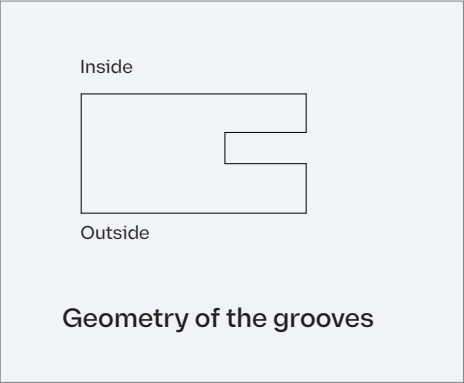
The minimum width of the grooves is 3mm, and the depth of grooving typically goes 10mm. Groove dimensions need to be defined for each project according to the Dekton thickness chosen and the project static calculations.

### Cutting and machining

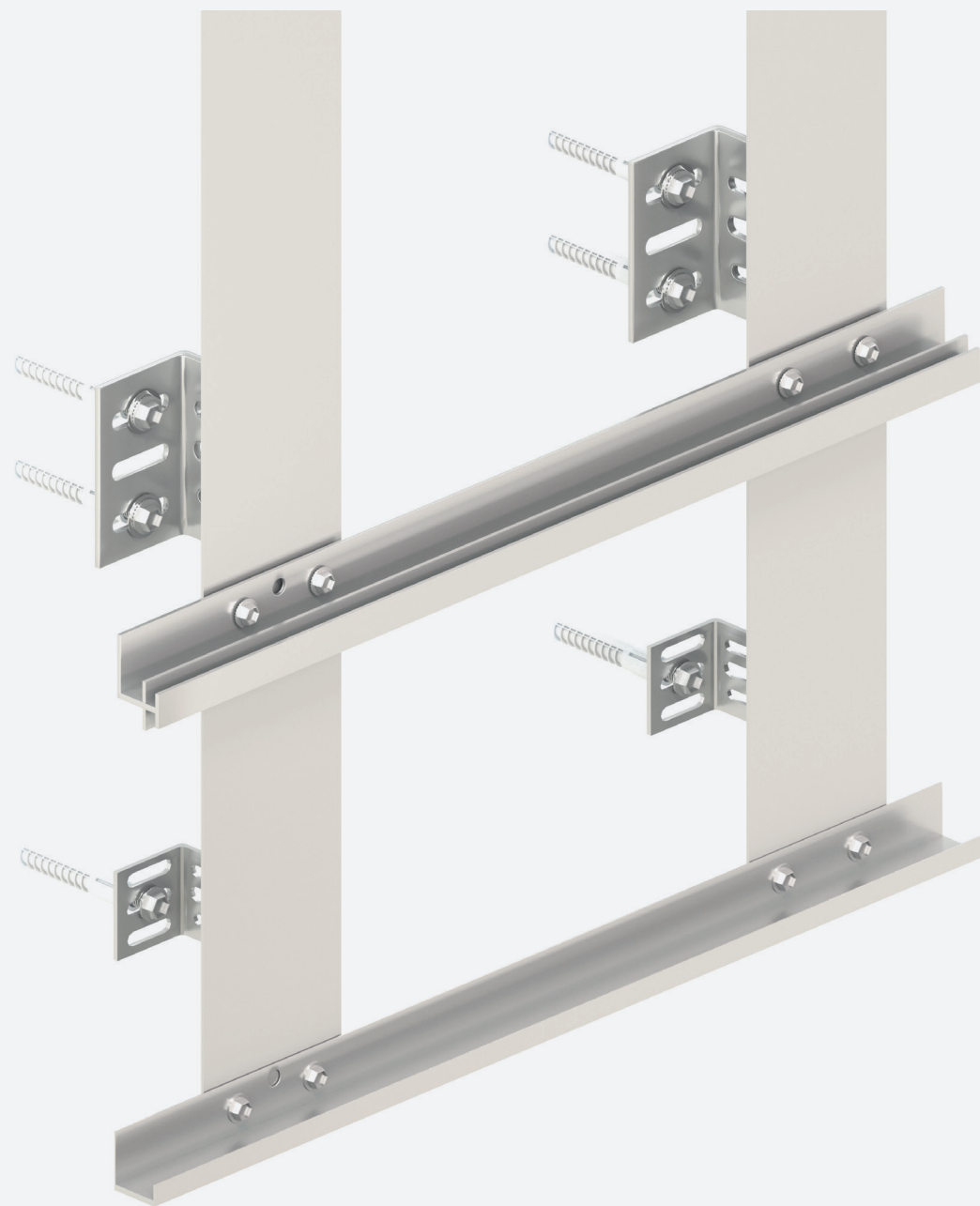
At the Cosentino Factory all slabs can be cut and machined following project drawings and delivered to site in the desired order.

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

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



DKT2 Structure





# DKT2 Static Calculations

## Schemes and data to de defined with SDP software

Panel 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.

## DKT2

### Dekton 12mm

Full slab configuration		
Design wind load kN/m²	Horizontal	Spacing between hor. profiles (mm)
0.5	H2	1200
1	H4	900
1.5	H6	600
2	H8	400
6	H10	170

### Dekton 20mm

Full slab configuration		
Design wind load kN/m²	Horizontal	Spacing between hor. profiles (mm)
0.5	H1	1440
1	H3	1000
1.5	H5	650
2	H7	500
5.5	H9	350

# DKT2 Layout

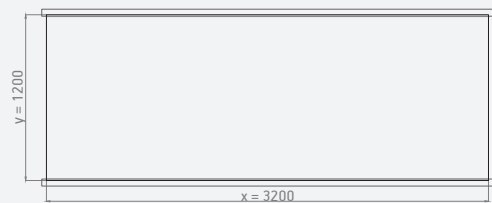
Design wind loads to be compared with reference design wind loads provided in this document should have applied wind load factors on characteristic values per applicable standards and regulations.

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

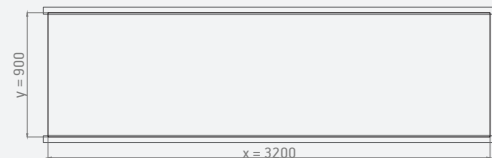
Cosentino does not provide static calculations for projects.

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.

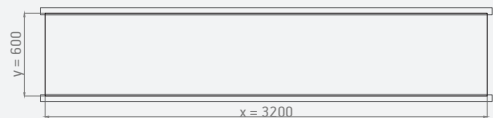
## 12mm HORIZONTAL CONFIGURATION



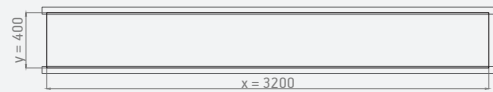
H2. Max. Design wind load: 0.5 kN/m²



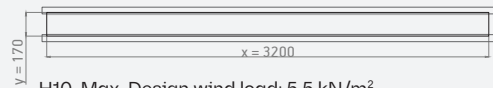
H4. Max. Design wind load: 1.0 kN/m²



H6. Max. Design wind load: 1.5 kN/m²

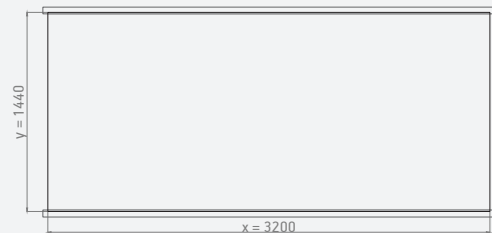


H8. Max. Design wind load: 2.0 kN/m²

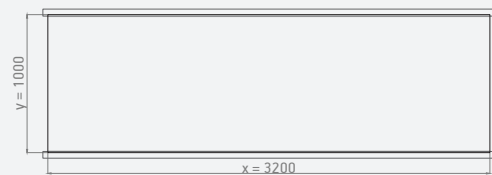


H10. Max. Design wind load: 5.5 kN/m²

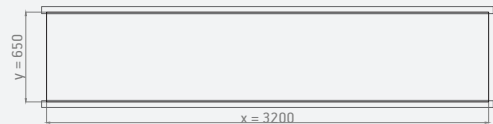
## 20mm HORIZONTAL CONFIGURATION



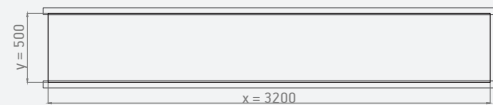
H1. Max. Design wind load: 0.5 kN/m²



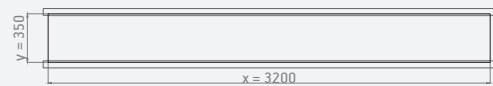
H3. Max. Design wind load: 1.0 kN/m²



H5. Máx. Design wind load: 1.5 kN/m²



H7. Max. Design wind load: 2.0 kN/m²



H9. Max. Design wind load: 6.0 kN/m²



CASE STUDY

# Valdebebas 127

Madrid, Spain

**Material**

7,600m<sup>2</sup> Dekton® Warm (customised) and Korus

**Installation system**

DKT2

**Thickness**

12mm













DKT2 - Case Study







CASE STUDY

# LD Hotel

Sevilla, Spain

**Material**

2,500 m<sup>2</sup> Dekton® Keon

**Facade system**

DKT2

**Thickness**

12mm







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\* To obtain more information about colours with an NSF certificate please visit [www.nsf.org](http://www.nsf.org)

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