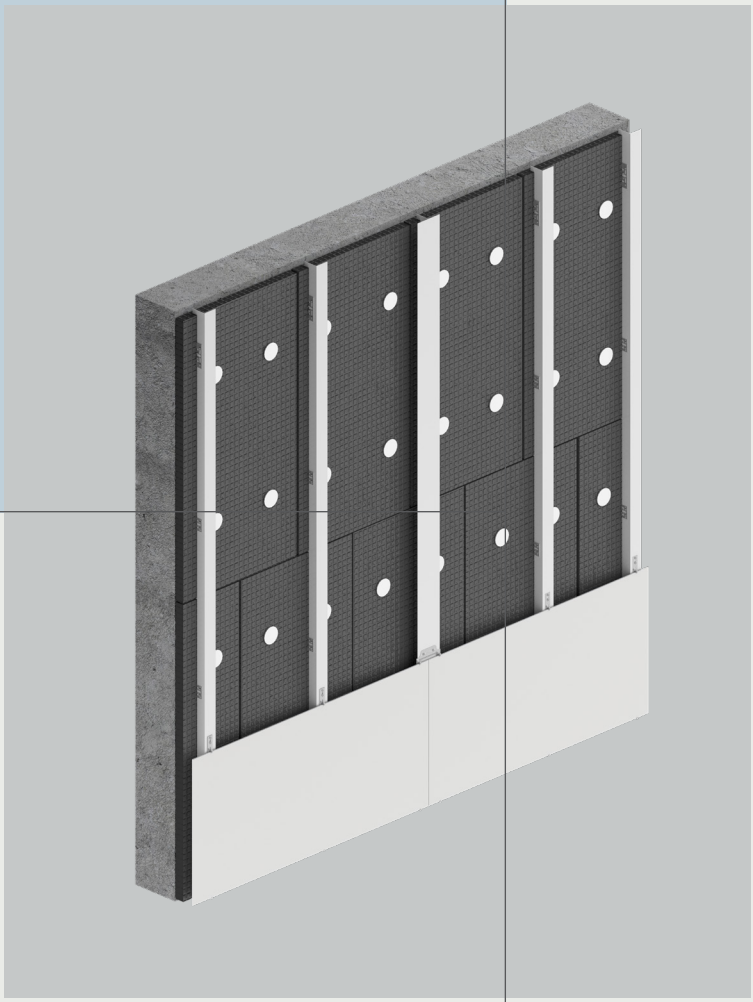
COSENTINO®

DKT4 Visible clip fixing system

COSENTINO® FAÇADES
DKT4. VISIBLE CLIP



DEKTON®

TECHNICAL CONTENT

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Purpose

In this document, Cosentino® sets out the working and good practice guidelines for the installation of Dekton® 8 mm in metal structures using a visible fixing system.

→ The information provided here is intended as a general guide only as the use of mechanical anchors requires verification of mechanical calculations, which are beyond the scope of this guide.

→ This guide does not address the performance of the clip fixing structure. It is the responsibility of the supplier of the structure to ensure that the system meets the requirements of the project.

→ The design and dimensions of the substructure depend on the façade construction and the system used. The distances between the profiles of the substructure and their width are determined by the load to be supported both by suction and by the weight of the Dekton® slab itself. The distances specified in this document are for information purposes only and shall be validated by the system provider.

→ Each project requires a specific and detailed design. The substructure shall be designed by a third party in accordance with all relevant standards and taking into account the design and its execution. Project specific calculations and drawings shall be prepared by a qualified and competent person.

System materials and accessories

Dekton® Protek by Cosentino® slab

Ultracompact Dekton® Protek 8 mm slabs have a mesh adhered to its rear face to prevent slab detachment and weigh less than 22 Kg/m^2, allowing the use of visible mechanical anchors for application in ventilated façades.

Cosentino® restricts the use of this mechanical solution to slab sizes up to 3200 x 710 mm (Horizontal x Vertical).

Physical features of Dekton® in accordance with ISO 10545

Thickness	8 ± 5 % mm
Water absorption	< 0.1 %
Flexural strength	> 45 N/mm^2

Its very low water absorption, resistance to unfavourable weather conditions, resistance to freezing and thawing and colour stability over time, make Dekton® an excellent solution for all types of façades.

Fixing: Visible clip

For the fixing of 8 mm Dekton® slabs, Cosentino® only supplies the clips and screws needed to fix the clips to the structure.

Clip fixing system

→ The fastening for the Dekton® cladding is done by means of DKT4 clips. These clips are manufactured in stainless steel AISI-304. The DKT4 clips are a visible system as the clip tabs are exposed, forming a 6 mm horizontal joint.

→ With the DKT4 clips, no machining is required to fix the 8 mm Dekton® slabs. The Dekton® surface is fixed between the tabs of the clip and the supporting surface of the vertical profile.

→ Two different sizes of clips are available: Double and Single. The clips are fixed to the profile by means of two 4.2 x 14 self-drilling screws in AISI-304 stainless steel, available on request.

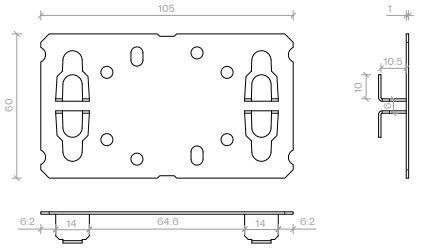
→ For better integration into the overall appearance of the façade, clips are supplied lacquered in a similar colour to the Dekton® slab.

Physical features of mechanical anchoring in accordance with DIN EN 10028-7

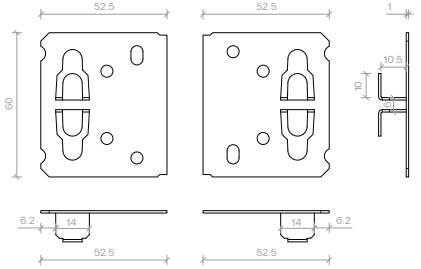
Steel type	304L
Modulus of elasticity	193,000 N/mm²
Mechanical resistance (R_m)	500 - 700 N/mm²
Limit of elasticity ($R_{p0.2}$)	220 N/mm²
Elongation	45 %
Brinell Hardness HB	82
Density	7.90 g/cm³
Thermal expansion coefficient	$17.3 \cdot 10^{-6}$ °C

Clip type	Permissible load
Starter / End clip	200 N
Middle clip	110 N

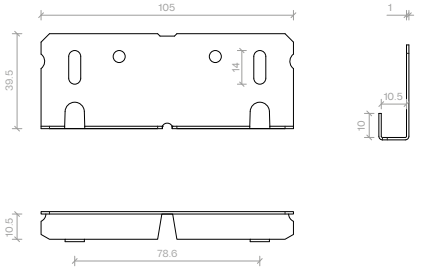
DKT4 clip - Double Middle fixing clip



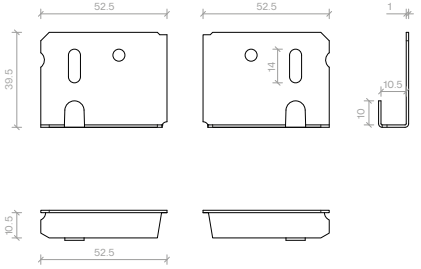
DKT4 clip - Single Middle fixing clip



DKT4 clip - Double Starter / End fixing clip



DKT4 clip - Single Starter / End fixing clip



SAP Code	Reference	Description	Clip colour
341951	GRA DKC/DKT4 SF08 INOX TACO/TOR INT 1010	FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Stainless steel
341979	GRA DKC/DKT4 SF08 INOX TACO/TOR TER 1010	FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Stainless steel
343014	GRA DKC/DKT4 SF08 INOX TACO/TOR INT MITAD 1010	'Mitad' FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Stainless steel
342995	GRA DKC/DKT4 SF08 INOX TACO/TOR TER MITAD 1010	'Mitad' FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Stainless steel

SAP Code	Reference	Description	Clip colour
342999	GRA DKC/DKT4 SF08 NEGRO TACO/TOR INT 1010	FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Black
343018	GRA DKC/DKT4 SF08 NEGRO TACO/TOR TER 1010	FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Black
343019	GRA DKC/DKT4 SF08 NEGRO TACO/TOR INT MITAD 1010	'Mitad' FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Black
343020	GRA DKC/DKT4 SF08 NEGRO TACO/TOR TER MITAD 1010	'Mitad' FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Black

SAP Code	Reference	Description	Clip colour
343023	GRA DKC/DKT4 SF08 BLANCO TACO/TOR INT 1010	FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	White
343031	GRA DKC/DKT4 SF08 BLANCO TACO/TOR TER 1010	FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	White
343030	GRA DKC/DKT4 SF08 BLANCO TACO/TOR INT MITAD 1010	'Mitad' FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	White
342991	GRA DKC/DKT4 SF08 BLANCO TACO/TOR TER MITAD 1010	'Mitad' FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	White

SAP Code	Reference	Description	Clip colour
343001	GRA DKC/DKT4 SF08 CREMA TACO/TOR INT 1010	FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Cream
343042	GRA DKC/DKT4 SF08 CREMA TACO/TOR TER 1010	FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Cream
343043	GRA DKC/DKT4 SF08 CREMA TACO/TOR INT MITAD 1010	'Mitad' FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Cream
343033	GRA DKC/DKT4 SF08 CREMA TACO/TOR TER MITAD 1010	'Mitad' FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Cream

SAP Code	Reference	Description	Clip colour
343046	GRA DKC/DKT4 SF08 GRIS CLARO TACO/TOR INT 1010	FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Light grey
343045	GRA DKC/DKT4 SF08 GRIS CLARO TACO/TOR TER 1010	FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Light grey
343047	GRA DKC/DKT4 SF08 GRIS CLARO TACO/TOR INT MITAD 1010	'Mitad' FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Light grey
343035	GRA DKC/DKT4 SF08 GRIS CLARO TACO/TOR TER MITAD 1010	'Mitad' FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Light grey

SAP Code	Reference	Description	Clip colour
343009	GRA DKC/DKT4 SF08 GRIS OSCURO TACO/TOR INT 1010	FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Dark grey
343016	GRA DKC/DKT4 SF08 GRIS OSCURO TACO/TOR TER 1010	FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Dark grey
342988	GRA DKC/DKT4 SF08 GRIS OSCURO TACO/TOR INT MITAD 1010	'Mitad' FV Middle Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Dark grey
343017	GRA DKC/DKT4 SF08 GRIS OSCURO TACO/TOR TER MITAD 1010	'Mitad' FV Starter/End Clip, 6 mm joint DKC/DKT4 Dekton® 8 mm Visible anchor with dowel and screw (AISI 304)	Dark grey

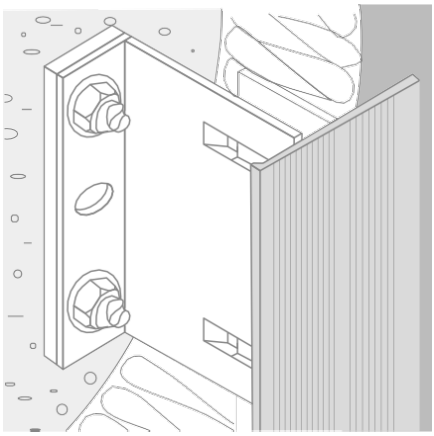
Profile systems

The recommended profile types for this system are listed below.

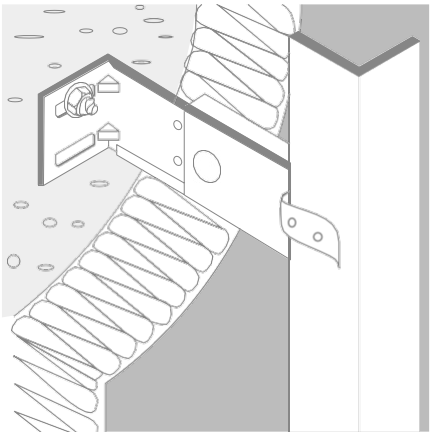
Dekton® can be fixed with the DKT4 (Visible clip) system using aluminium profiles (6060 or 6063) with a minimum thickness of 2 mm.

T-shaped aluminium profiles will be used for vertical joints with a minimum width of 110 mm and T- or L-shaped aluminium profiles for intermediate vertical joints with a minimum width of 40 mm.

Metal substructure



→ Aluminium



→ Galvanised steel

Design recommendations

→ The dimensions of the perpendicular substructure depend on the façade construction. The distances between the profiles of the substructure and their width are determined by the load to be supported both by suction and by the weight of the Dekton® slab itself. The distances specified in this document are for information purposes only and shall be validated by the system provider.

→ Each project requires a specific detailed design. The substructure shall be designed by a third party in accordance with all relevant standards and taking into account the design and its execution.

→ Project specific calculations and drawings shall be prepared by a qualified and competent person. Cosentino® cannot provide or approve any structure design or anchor layout.

→ Cosentino® only provides information on the behaviour of the slab if the anchoring system detailed in this guide (Clip and Screw) is used. Any variation in any of the elements used, which are listed in this guide, could affect the results obtained.

→ It is recommended that an engineering company performs the relevant calculations or a project specific test to simulate the specific conditions of each project.

General parameters for the calculation

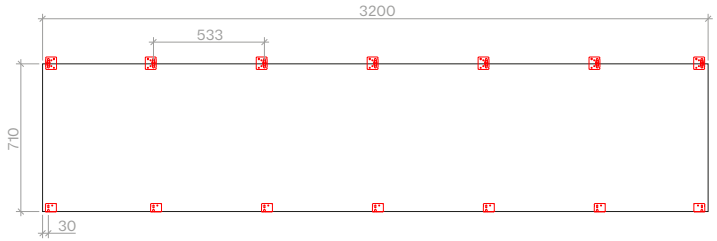
Element	Parameter	Unit	Value
Dekton® slab	Maximum slab height (Vertical height)	mm	710
Anchor	Maximum horizontal distance	mm	600
	Maximum vertical resistance (Weight)	N	110
	Maximum perpendicular resistance (Wind)	N	574

Wind load and configurations

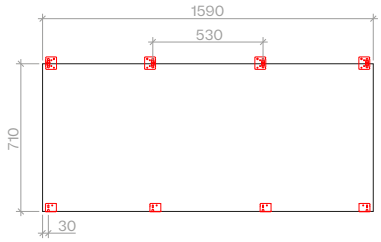
Configuration	Length (Horizontal) [mm]	Width (Vertical) [mm]	Number of anchors	Result [Pa]
C1	3,200	710	14	3,500
C2	1,590	710	8	4,000
C3	600	710	4	5,400
C4	3,200	470	14	5,300
C5	1,590	470	8	6,100
C6	600	470	4	8,157
C7	3,200	355	14	7,000
C8	1,590	355	8	8,100
C9	600	355	4	10,000

- The values given in this table were calculated without any reduction factor being applied.
- Please refer to the legislation and regulations in force in each country to determine the appropriate reduction factor. If there are no applicable regulations, it is recommended to reduce the values with a safety factor of not less than 1.5.

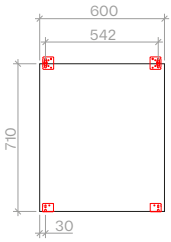
Configuration C1



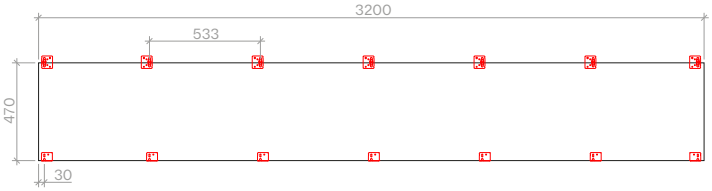
Configuration C2



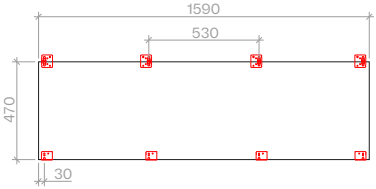
Configuration C3



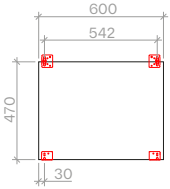
Configuration C4



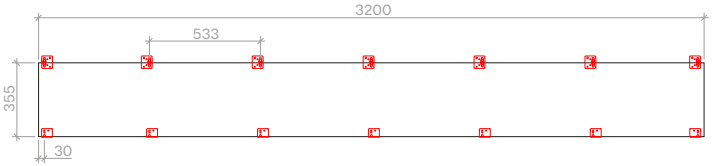
Configuration C5



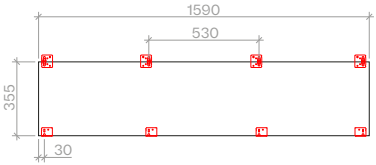
Configuration C6



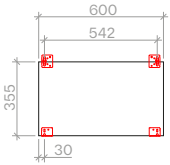
Configuration C7



Configuration C8



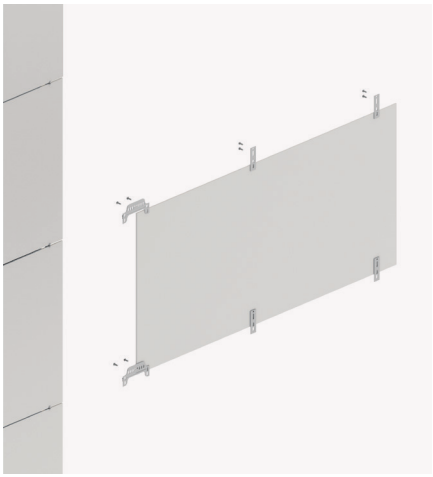
Configuration C9



Cosentino® has defined these colours to facilitate clip selection.
These colours, listed above, correspond to the following model selection:

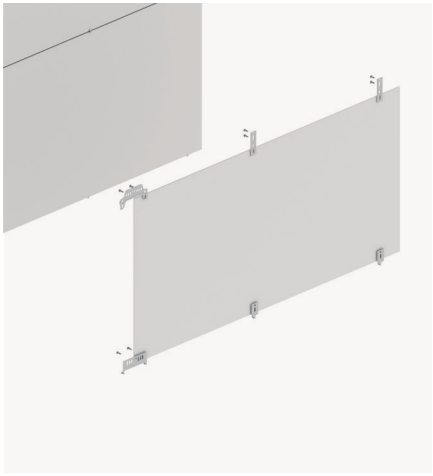
Cream			
	Danae	Edora	
White			
	Mooné	Uyuni	Zenith
Black			
	Domoos	Sirius	
Dark grey			
	Kovik	Kreta	Soke
Light grey			
	Keon	Sirocco	Strato

→ Joints



→ Middle clips

→ Lower and middle clips

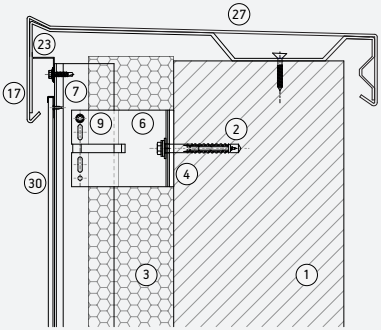


→ Lower clips

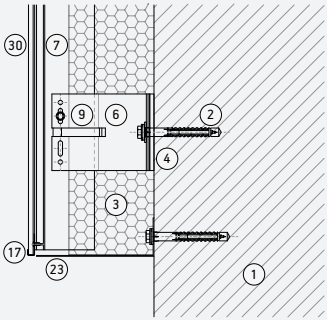
DKT4 system details

DKT4 vertical section

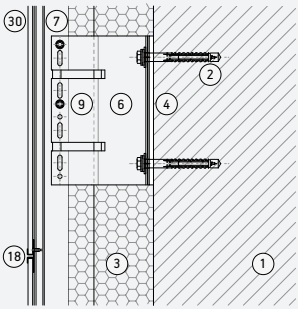
Upper detail



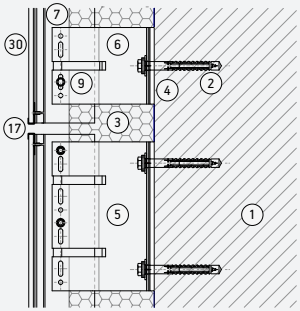
Bottom detail



Horizontal joint



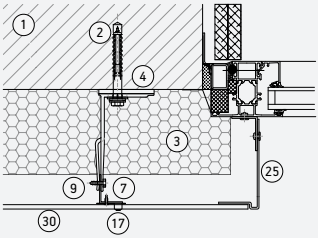
Joint between profiles



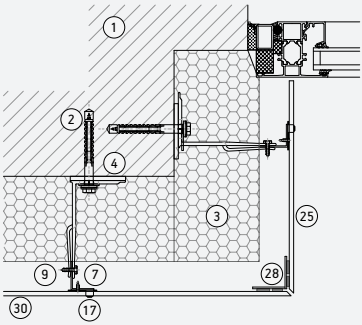
1. Supporting wall
2. Anchor bracket
3. Insulation
4. Insulating layer
5. Fixed bracket
6. Adjustable bracket
7. L-shaped profile
8. T-shaped profile
9. Self tapping screw
10. Rivet
11. Undercut anchor
12. Horizontal rail
13. C-shaped hanger
14. Adjustable C-shaped hanger
15. Bottom/top edge profile/clip
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® Protek

DKT4 horizontal section

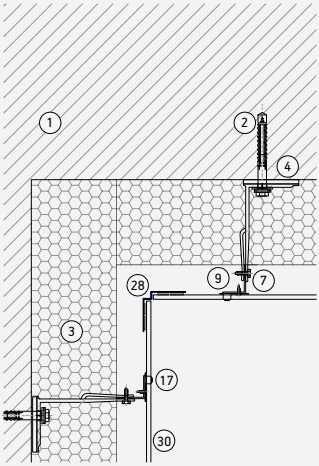
Metallic jamb



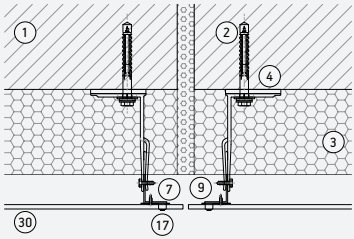
Dekton® jamb



Internal corner



Vertical expansion joint



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27. Top coping
28. Corner profile
29. Bonding adhesive
30. Dekton® Protek

Health and safety

Risks associated with handling and transport

Operators and fitters dealing with Dekton® must comply with all laws and regulations relating to occupational health and safety in 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.

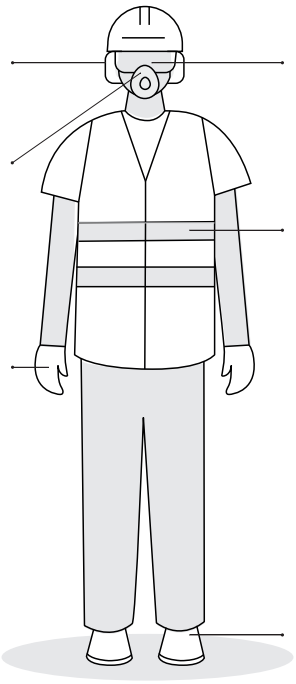
Always follow the safety instructions contained in this Guide.

Risks associated with manufacturing and transformation

The manufacturing process can 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 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)

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

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