

CATALOG

PRESCRIPTION

KRICN® PORCELANOSA
SOLID SURFACE



WALLS

+ PROPERTIES, + POSSIBILITIES, + APPLICATIONS...

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ANEXO PARED	
A. Maximum surfaces with no joints	

1. KRION®

KRION® is a new generation solid surface developed by SYSTEMPOOL, a company that belongs to PORCELANOSA Group.

It is a material that is warm to the touch and similar to natural stone. It is made of two-thirds natural minerals (ATH – aluminium trihydride) and a low percentage of high-resistance resins. This composition gives KRION™ a number of exclusive features: it does not have any pores, it is antibacterial without any type of additive, it is hard-wearing, highly resistant and easy to repair, only requires minimum maintenance and is easy to clean.

It is shaped in a similar way to wood, making it possible to cut the sheets, connect them and thermoform them to create curved sections, and can even be injection moulded to create designs and projects that are impossible with other materials.

Seamless sections can be created, preventing liquids from being absorbed and making cleaning and maintenance easier.

We offer a wide range of colours, including a white finish that stands out for its purity and neutrality in comparison with other similar materials.

It is an ecological material, as it is 100% recyclable. All products made of KRION™ can be reprocessed and reused in the production cycle.



NATURE INSPIRATION

+ PROPERTIES,
POSSIBILITIES,
APPLICATIONS...



KRION® is a compact alumina material, made of alumina powder with a particle size of 7 microns upwards and hightech monomers, and exclusive additives developed by our R&D department.

Alumina trihydrate (ATH) is extracted from mineral ore and refined, prior to its use, to ensure a purity of up to 99.8%.



2. PROPERTIES



A high mineral content

This material is made of two-thirds natural minerals and a low percentage of high-resistance resins.



Ultra-white

Technically KRION® achieves a Whiteness of 99,8 %, if we combine this with its high Light Reflective Value, we find a pure and luminous material, something unique in Solid Surface materials.



Antibacterial

KRION® does not allow bacteria or fungi to grow or spread. This is an intrinsic property of the composition of the material, without the need for additives to achieve this permanent effect.



Ecological / 100% Recyclable

KRION® is an ecological material, as it is 100% recyclable. Any product made of KRION™ can be re-processed and used again in its production process.



A lightweight material

Because KRION® has a lower density than other solid surfaces, like high-performance porcelain, artificial quartz or natural marble, it is easier to handle, for instance in the creation of countertops and more lightweight furniture, without relinquishing all the other properties of this solid surface.



Compressive strength

A compression test is a test used to determine a material's resistance or capacity to withstand a certain load without it breaking or becoming deformed. Thanks to its high compressive strength, KRION® has a compressive performance on a par with stone. These values can be used by designers and/or architects to calculate the design parameters for structures.



Seamless joints

KRION® sheets and shapes can be bonded together using bonding kits of a similar composition to KRION®. This guarantees uniform physical and chemical properties throughout.



Bending strength

Bending strength is a combination of tensile and compressive strength. This type of load can deform materials by making them sag. Many solid materials cannot withstand high loads and they crack. In contrast, KRION® has a high bending strength. Thanks to the high bending strength of KRION®, it is easier to transport and it can be used to create aesthetically pleasing overhanging sections and surfaces with higher safety guarantees than other materials.



Low thermal conductivity

Thermal conductivity is a physical property, determining a material's capacity to transmit heat. The lower the thermal conductivity, the higher the material's insulative capacity. Using KRION® on walls or other surfaces contributes to the energy efficiency of rooms or façades.



Food grade

KRION™ is a food-grade product and meets US and European standards, meaning it can be used in contact with foodstuffs.

2. PROPERTIES



Non porous

KRION® is a non-porous material and so it prevents the build-up of bacteria. This makes it ideal for places with strict health and hygiene conditions, such as operating theatres or clean rooms.



Easy to clean

Any normal stain, superficial burn, graffiti or marker pen stain can be removed, immediately returning the surface to its original appearance simply by following the recommended cleaning instructions.



Thermoformable

KRION® sheets can be thermoformed to create curves or shapes of varying radii.



Backlighting

KRION® Lux can be used to create backlit spaces. By combining different thicknesses of the material, it is possible to create spectacular lighting effects.



Resistant to impacts

KRION® has the highest capacity to absorb impacts of all solid surfaces. In impact tests using large diameter balls (324 g) dropped from a height of 1.9 metres, it withstood ten consecutive impacts without breaking, demonstrating its very high resistance.



Resistant to extreme environments

KRION® surfaces are capable of withstanding extreme environments, such as marine environments, exposure to steam, immersion in water or freezing conditions, amongst others.



Resistant to sunlight

KRION® stands out for its remarkable stability when exposed to ultraviolet (UV) rays. The most stable colour is white; please consult the manufacturer for information on other colours.



Highly resistant to fire

KRION® product range is considered to be practically fireproof as it does not allow fire to spread. It is classified as Euroclass B-s1-do according to the UNE-EN 13501 standard and as B1 (with no restrictions) according to DIN 4102.



Anti-static

Static electricity is a build-up of electrical charges on the surface of a material, sometimes generated by friction with another material. Many materials are classified according to their electrical resistivity. KRION® is rated as being anti-static and very close to insulative, according to the ESD (Electrostatic Discharge Association).



Sound insulation

Thanks to its intrinsic physical properties - a seamless, low-density material of varying thicknesses with no pores -, KRION® helps to insulate noise. This is due to its density, nil porosity, different thicknesses, and lack of seams. More specifically, if the noise level is reduced by 10 decibels, the human ear hears just half the resulting intensity. KRION® can reduce the noise level by up to 14 decibels.

3

WALLS

- 3.1 KRION® sheets on plasterboard wall
Bonded with white P-404 polyurethane adhesive putty by BUTECH®
- 3.2 KRION® sheets on cement-rendered brick wall
Bonded with white P-404 polyurethane adhesive putty by BUTECH®
- 3.3 KRION® sheets on cement and brick wall
Bonded with white P-404 by BUTECH® to profiles, with sound and thermal insulation
- 3.4 KRION® sheets on cement-rendered brick wall
Bonded with white P-404 by to wooden battens
- 3.5 KRION® sheets on wall with a metal hanger system
Inserted into system with z-clips
- 3.6 KRION® sheets on wall with indirect lighting
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- 3.8 KRION® curved sheets on straight wall
Bonded with white P-404 by BUTECH® onto a curved wooden frame
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- 3.10 KRION® sheets on backlit wall
Using profiles at the top and bottom
- 3.20 Example of KRION® as an indoor wall covering
Bonded with white P-404 by BUTECH® to wooden battens
- 3.21 KRION® sheets on wall of operating theatre
Bonded with white P-404 polyurethane adhesive putty by BUTECH®
- 3.22 KRION® sheets on lift wall
Bonded with white P-404 polyurethane adhesive putty by BUTECH®

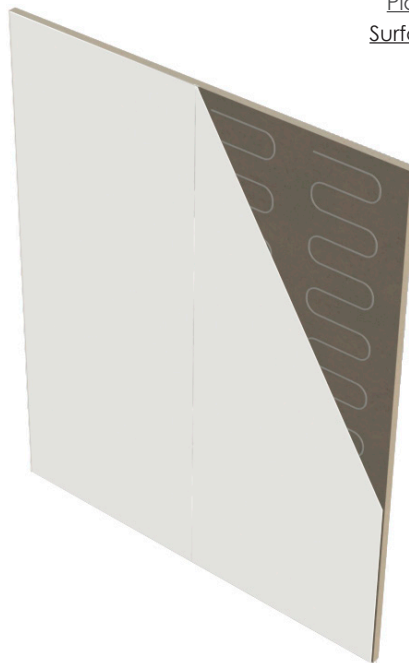
3.1 KRION® sheets on plasterboard wall

Bonded with white P-404 polyurethane adhesive putty by BUTECH®

6/12 mm

Planimetry **ok**
Surface finish **ok**

Solid Surface Cladding, 6/12 mm thick KRION® POR-CELANOSA Solid Surface sheets, with a b s1 d0 Euro-class fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. KRION® cladding laid on plasterboard using a line of white P-404 polyurethane adhesive putty by BUTECH®.



INSTALLATION

The following instructions apply provided that the plasterboard has the necessary flatness, verticality and surface stability.

Spread a line of white P-404 adhesive by Butech® across the whole underside of the KRION® sheet. Once the entire underside has been covered, bond the sheet to the plasterboard, exerting uniform pressure to make sure that it is vertically aligned. As a preventive measure, the KRION® sheets should always be rested on part of the skirting or floor so that the adhesive simply prevents the sheet from coming unstuck and falling forward.

As a general rule, up to 4 KRION® sheets can be bonded to the plasterboard without an expansion joint, hence covering an area of 3 x 3.6 m. In special cases, a prior project analysis should be made.¹

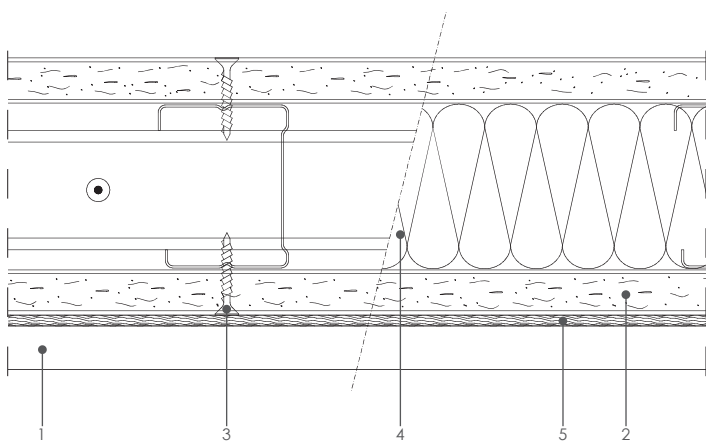
¹ Check the appendix for the maximum size of surfaces without a joint.



1. KRION® 12 MM.
2. PLASTERBOARD.
3. SCREW.
4. ISOLATION.
5. P-404 ADHESIVE.

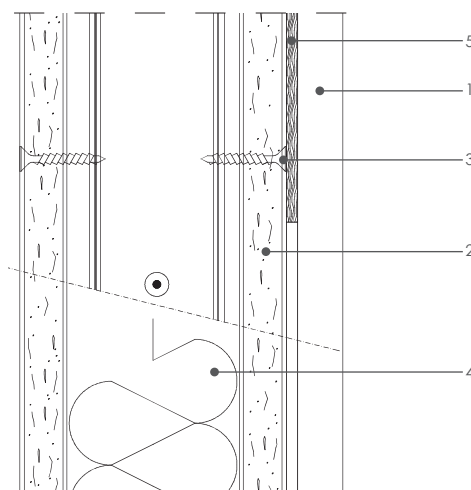
Horizontal section

Scale: 1:2 (mm)



Vertical section

Scale: 1:2 (mm)



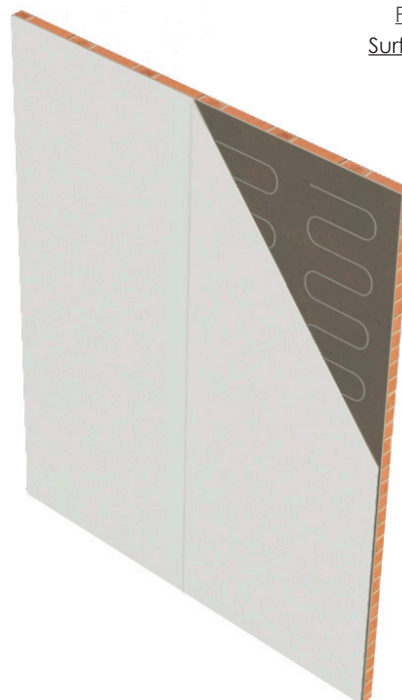
3.2 KRION® sheets on cement-rendered brick wall

Bonded with white P-404 polyurethane adhesive putty by BUTECH®

6/12 mm

Planimetry ok
Surface finish ok

Solid Surface Cladding, 6/12 mm thick KRION® PORCELANOSA Solid Surface sheets, with a b s1 d0 Euro-class fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. KRION cladding bonded onto a cement-rendered brick wall using a line of white P-404 polyurethane adhesive putty by BUTECH®.



INSTALLATION

The following instructions apply provided that the plasterboard has the necessary flatness, verticality and surface stability.

Spread a line of white P-404 adhesive by Butech® across the whole underside of the KRION® sheet. Once the entire underside has been covered, bond the sheet to the plasterboard, exerting uniform pressure to make sure that it is vertically aligned. As a preventive measure, the KRION® sheets should always be rested on part of the skirting or floor so that the adhesive simply prevents the sheet from coming unstuck and falling forward.

As a general rule, up to 4 KRION® sheets can be bonded to the plasterboard without an expansion joint, hence covering an area of 3 x 3.6 m. In special cases, a prior project analysis should be made.¹

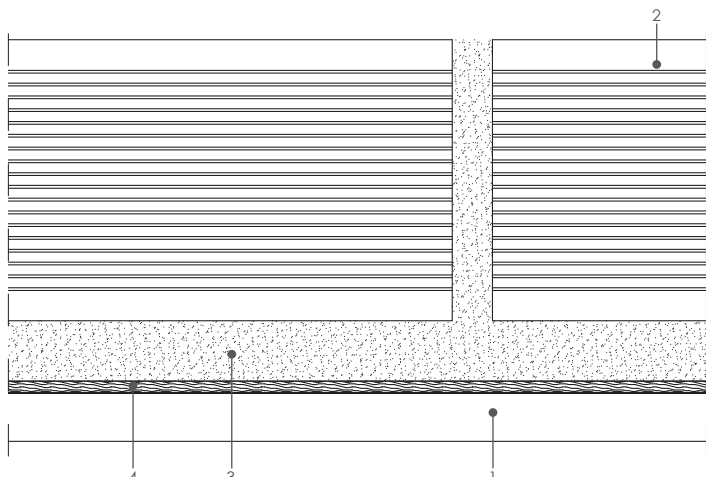
If the wall is painted, it must first be sanded to prevent flaking.

¹ Check the appendix for the maximum size of surfaces without a joint.

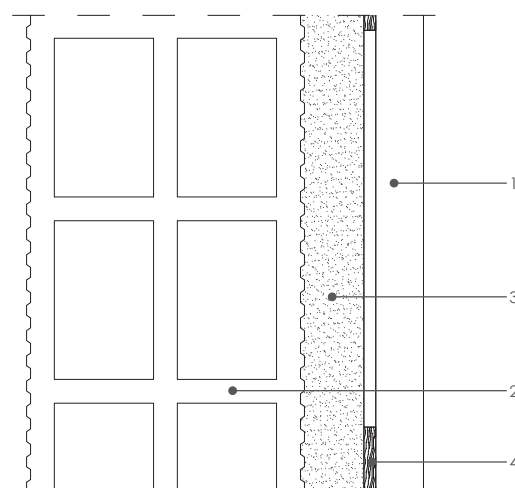


- 1. KRION® 12 MM.
- 2. BRICK WALL.
- 3. CEMENT-RENDERED.
- 4. P-404 ADHESIVE.

Horizontal section
Scale: 1:2 (mm)



Vertical section
Scale: 1:2 (mm)



3.3 KRION® sheets on cement and brick wall

Bonded with white P-404 by BUTECH® to profiles, with sound and thermal insulation

6/12 mm

Planimetry ok
Surface finish ok

Solid Surface Cladding, 6/12 mm thick KRION® PORCELANOSA Solid Surface sheets, with a b s l d0 Euro-class fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. KRION® sheets on a cement-rendered brick wall using aluminium profiles, thermal and sound insulation, and a line of white P-404 polyurethane adhesive putty by BUTECH®.



INSTALLATION

If insulation is required between the wall and the KRION® sheets, a different anchorage system is needed. First fasten L-shaped aluminium brackets to the wall that are resistant enough not to bend. Then fix U-shaped aluminium profiles to them and insert the insulating fibre into the U-shaped slot. Lastly, bond the KRION® sheet to the profiles using white P-404 adhesive by BUTECH®. As a preventive measure, the KRION® sheets should always be rested on part of the skirting or floor so that the adhesive simply prevents the sheet from coming unstuck and falling forward.

As a general rule, up to 4 KRION® sheets can be bonded to the plasterboard without an expansion joint, hence covering an area of 3 x 3.6 m. In special cases, a prior project analysis should be made.¹

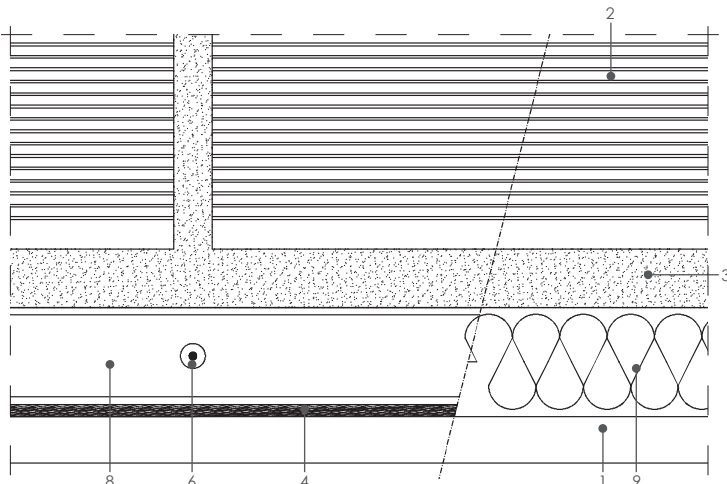


¹ Check the appendix for the maximum size of surfaces without a joint.

1. KRION® 12 MM.
2. BRICK WALL.
3. CEMENT-RENDERED.
4. P-404 ADHESIVE.
5. MECHANICAL ANCHORING.
6. STAINLESS STEEL SELF-DRILLING SCREW WITH WASHER EPDM.
7. SEPARADOR SECUNDARIO DE ALUMINIO.
8. U-SHAPED ALUMINIUM PROFILE.
9. THERMAL ACOUSTIC INSULATION.

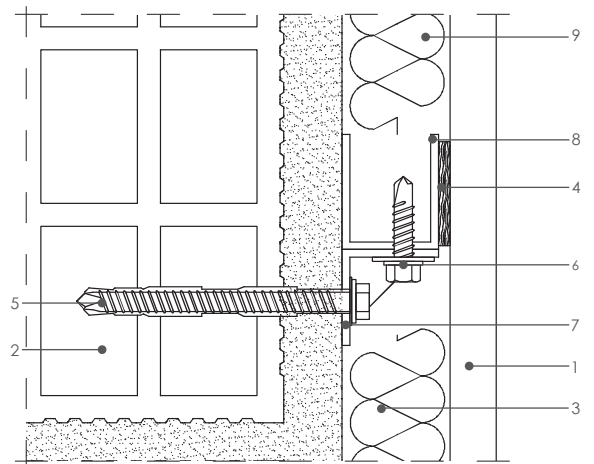
Horizontal section

Scale: 1:2 (mm)



Vertical section

Scale: 1:2 (mm)



3.4 KRION® sheets on cement-rendered brick wall

Bonded with white P-404 by to wooden battens

Solid Surface Cladding, 6/12 mm thick KRION® PORCELANOSA Solid Surface sheets, with a b s1 d0 Euro-class fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. KRION® sheets on a cement-rendered brick wall, using phenolic plywood separators and a line of white P-404 polyurethane adhesive putty by BUTECH®.

6/12 mm
 Planimetry ok
 Surface finish no ok



INSTALLATION

When the wall to be clad is not in perfect condition, white P-404 polyurethane adhesive cannot be used on its own.

Wooden battens must first be screwed to the wall and then the KRION® sheets bonded to the battens with white P-404 adhesive by BUTECH®. As a preventive measure, the KRION® sheets should always be rested on part of the skirting or floor so that the adhesive simply prevents the sheet from coming unstuck and falling forward.

As a general rule, up to 4 KRION® sheets can be bonded to the plasterboard without an expansion joint, hence covering an area of 3 x 3.6 m. In special cases, a prior project analysis should be made. ¹

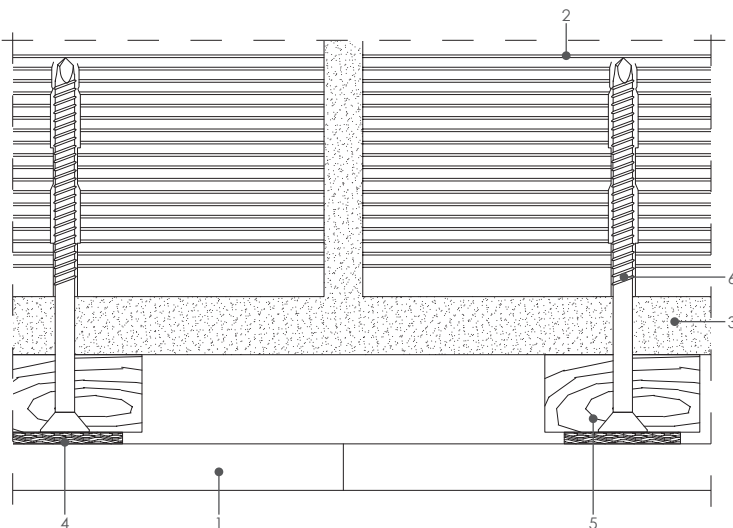
If the worksite is prone to a high degree of atmospheric humidity, wooden battens should not be used. Instead, they should be replaced with aluminium profiles.

¹ Check the appendix for the maximum size of surfaces without a joint.

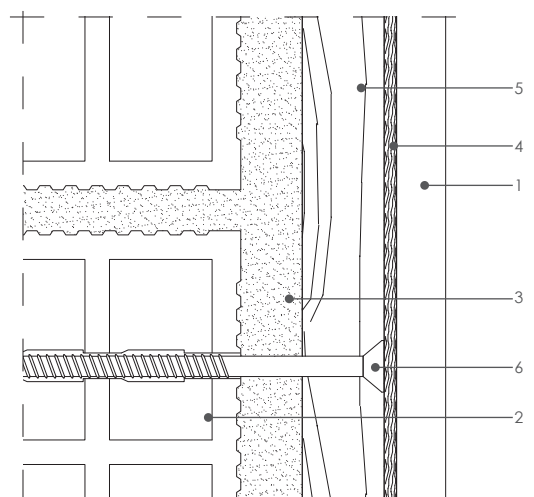


- 1. KRION® 12 MM.
- 2. BRICK WALL.
- 3. CEMENT-RENDERED.
- 4. P-404 ADHESIVE.
- 5. WOODEN BATTENS.
- 6. MECHANIC ANCHORAGE.

Horizontal section
 Scale: 1:2 (mm)



Vertical section
 Scale: 1:2 (mm)



3.5 KRION® sheets on wall with a metal hanger system

Inserted into system with z-clips

Solid Surface Cladding, 12 mm thick KRION® PORCEL-ANOSA Solid Surface sheets, with a b s1 d0 Euroclass fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. Z-clip anchorage system.

INSTALLATION

Aluminium profiles with z-clips should be fitted, screwing one profile to rawplugs in the wall and fixing the other to the back of the KRION® sheets, using inserts and screws. With this system, the sheets can be removed for maintenance purposes or to redesign the wall surface.

As a general rule, up to 4 KRION® sheets can be bonded to the plasterboard without an expansion joint, hence covering an area of 3 x 3.6 m. In special cases, a prior project analysis should be made.¹

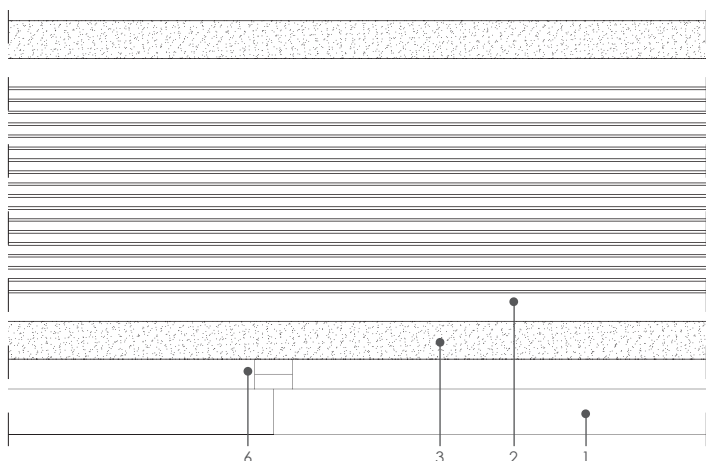
¹ Check the appendix for the maximum size of surfaces without a joint.

12 mm
 Planimetry ok
 Surface finish no ok

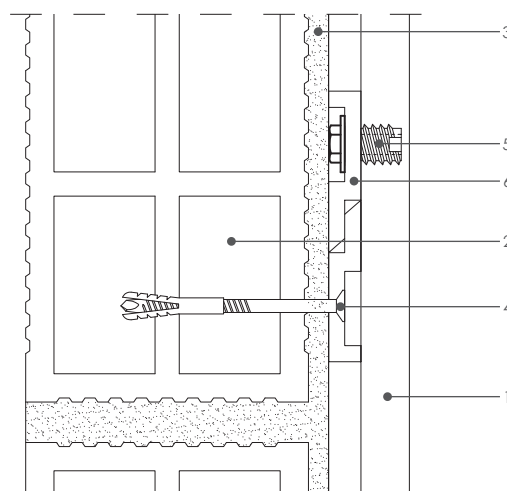


1. KRION® 12 MM.
2. BRICK WALL.
3. CEMENT-RENDERED.
4. MECHANIC ANCHORAGE.
5. SCREW.
6. SYSTEM Z-CLIP.

Horizontal section
 Scale: 1:2 (mm)



Vertical section
 Scale: 1:2 (mm)



3.6 KRION® sheets on wall with indirect lighting

Bonded with white P-404 by BUTECH® to aluminium profiles

6/12 mm

Planimetry **no ok**

Surface finish **no ok**

Solid Surface Cladding, 6/12 mm thick KRION® PORCELANOSA Solid Surface sheets, with a b s1 d0 Euro-class fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. KRION® sheets on a cement-rendered brick wall, using aluminium profiles and a line of white P-404 polyurethane adhesive putty by BUTECH®.



INSTALLATION

When the wall to be clad is not in perfect condition, white P-404 polyurethane adhesive cannot be used on its own. Metal profiles must be used to ensure a flat clad surface. First L-shaped separators must be fixed to the wall with slotted holes. Then aluminium profiles must be screwed to these separators into the holes. Lastly, the KRION® sheets must be bonded to the profiles with white P-404 adhesive by BUTECH®. As a preventive measure, the KRION® sheets should always be rested on part of the skirting or floor so that the adhesive simply prevents the sheet from coming unstuck and falling forward.

As a general rule, up to 4 KRION® sheets can be bonded to the plasterboard without an expansion joint, hence covering an area of 3 x 3.6 m. In special cases, a prior project analysis should be made.¹

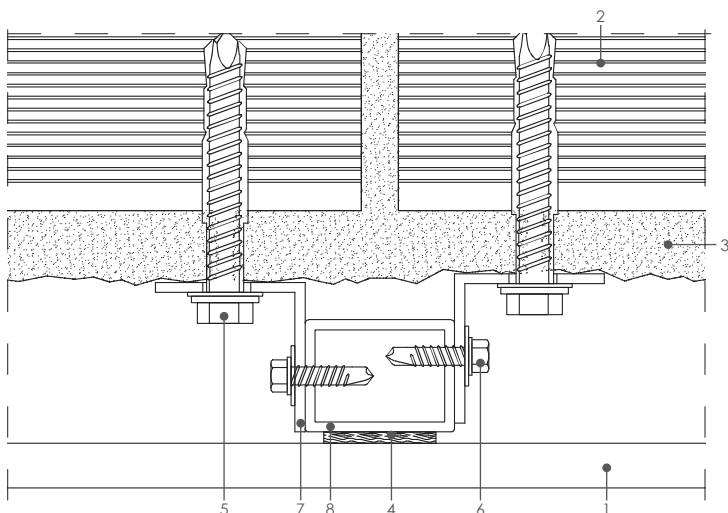
¹ Check the appendix for the maximum size of surfaces without a joint.



1. KRION® 12 MM.
2. BRICK WALL.
3. CEMENT-RENDERED.
4. P-404 ADHESIVE.
5. MECHANIC ANCHORAGE.
6. STAINLESS STEEL SELF-DRILLING SCREW WITH WASHER EPDM.
7. SECONDARY ALUMINUM BRACKETS.
8. ALUMINUM TUBULAR PROFILE.

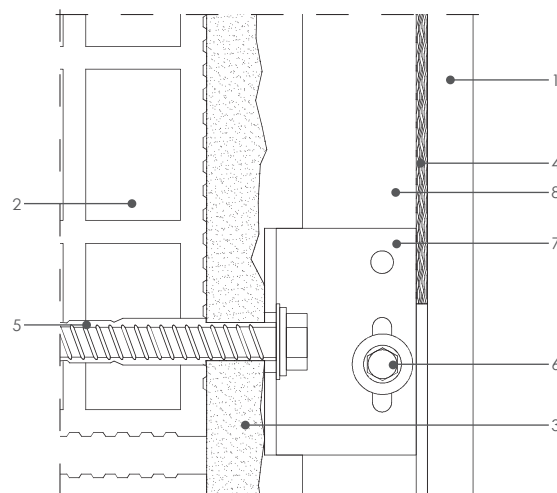
Horizontal section

Scale: 1:2 (mm)



Vertical section

Scale: 1:2 (mm)



3.7 KRION® on cement-rendered wall

Bonded with white P-404 by BUTECH® to aluminium profile

6/12 mm

Planimetry **no ok**
Surface finish **no ok**

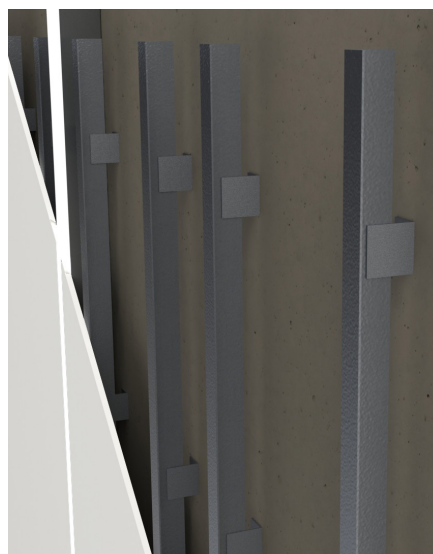
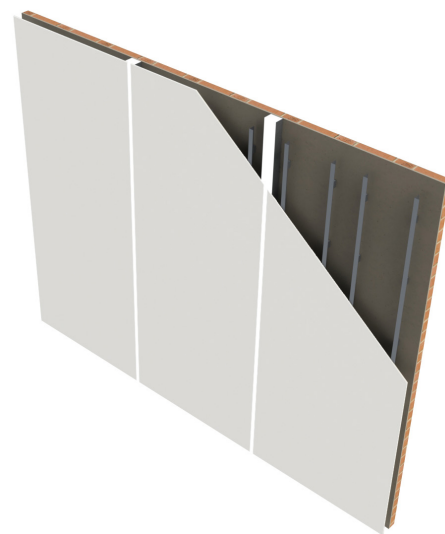
Solid Surface Cladding, 6/12 mm thick KRION® PORCELANOSA Solid Surface sheets, with a b s1 d0 Euro-class fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. KRION® sheets on a wall with indirect lighting on a melamine moulding, using a system of aluminium profiles.

INSTALLATION

Metal profiles should be used to ensure a flat clad surface. First L-shaped separators must be fixed to the wall. Then aluminium profiles must be screwed to the separators. Next, the moulding that holds the lighting should be fitted. Lastly, the KRION® must be bonded to the profiles using white P-404 adhesive by BUTECH®. As a preventive measure, the KRION® sheets should always be rested on part of the skirting or floor so that the adhesive simply prevents the sheet from coming unstuck and falling forward.

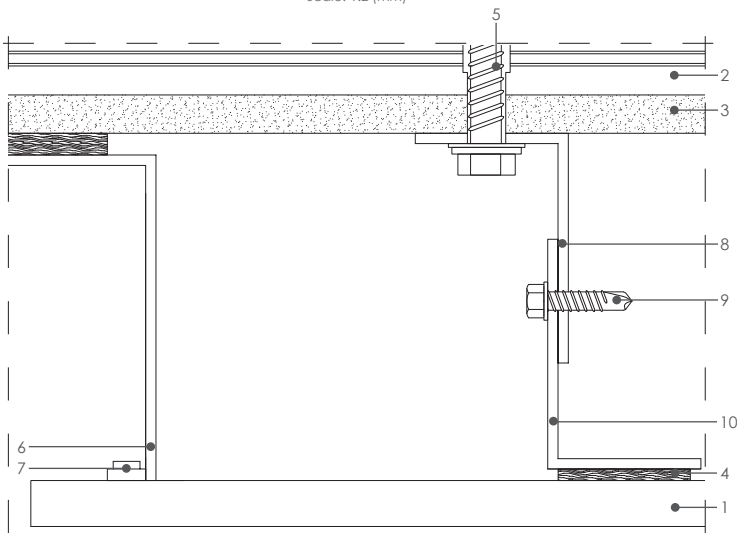
As a general rule, up to 4 KRION® sheets can be bonded to the plasterboard without an expansion joint, hence covering an area of 3 x 3.6 m. In special cases, a prior project analysis should be made.¹

¹ Check the appendix for the maximum size of surfaces without a joint.

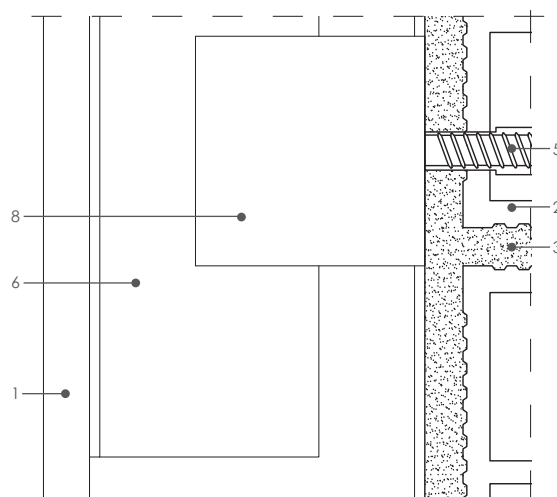


1. KRION® 12 MM.
2. BRICK WALL.
3. CEMENT-RENDERED.
4. P-404 ADHESIVE.
5. MECHANIC ANCHORAGE.
6. U-SHAPED ALUMINIUM PROFILE.
7. LED.
8. SECONDARY ALUMINIUM BRACKETS.
9. STAINLESS STEEL SELF-DRILLING SCREW WITH WASHER EPDM.
10. L-SHAPED ALUMINIUM PROFILE.

Horizontal section
Scale: 1:2 (mm)



Vertical section
Scale: 1:2 (mm)

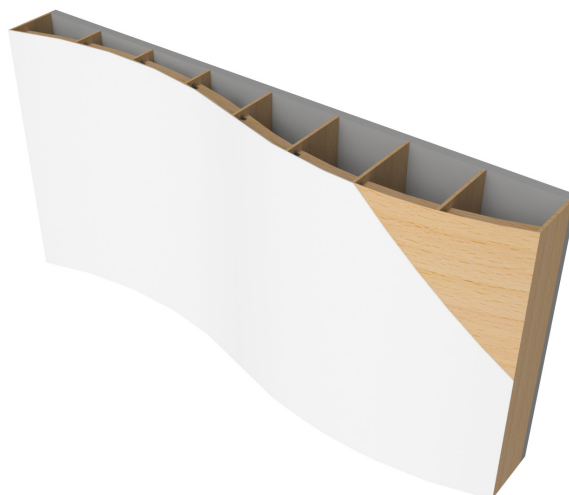


3.8 KRION® curved sheets on straight wall

Bonded with white P-404 by BUTECH® onto a curved wooden frame

6/12 mm

Solid Surface Cladding, 6/12 mm thick KRION® PORCELANOSA Solid Surface sheets, with a b s1 d0 Euro-class fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. KRION® sheets on a straight wall, using a wooden mould, bonded with a line of white P-404 polyurethane adhesive by BUTECH®.

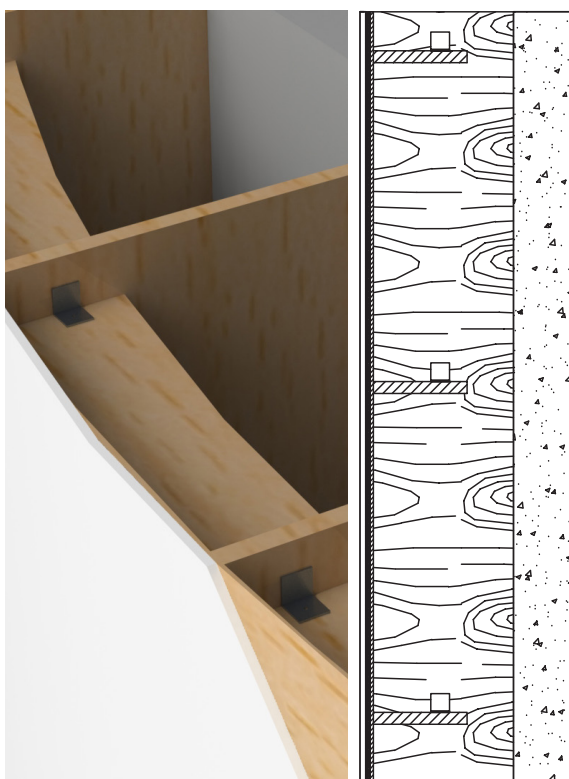


INSTALLATION

Use a wooden mould in the shape of the curve, with ribs and a front surface. This should be waterproofed to guarantee the necessary stability. Fix this to the rear wall and then bond the KRION® sheets to the surface using white P-404 adhesive by BUTECH®. As a preventive measure, the KRION® sheets should always be rested on part of the skirting or floor so that the adhesive simply prevents the sheet from coming unstuck and falling forward.

As a general rule, up to 4 KRION® sheets can be bonded to the plasterboard without an expansion joint, hence covering an area of 3 x 3.6 m. In special cases, a prior project analysis should be made.

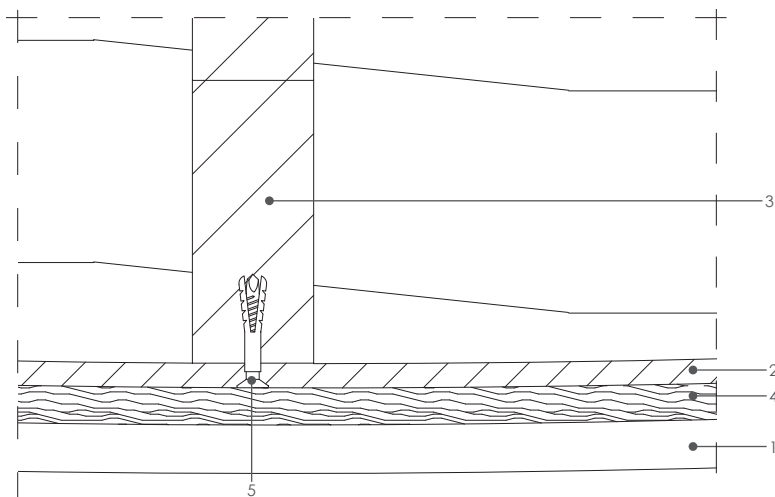
1 Check the appendix for the maximum size of surfaces without a joint.



- 1. KRION® 12 MM.
- 2. SUPPORT BASE.
- 3. RIB.
- 4. P-404 ADHESIVE.

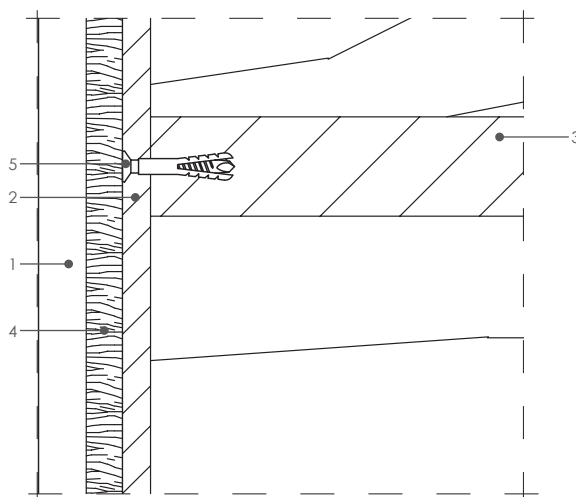
Horizontal section

Scale: 1:2 (mm)



Vertical section

Scale: 1:2 (mm)

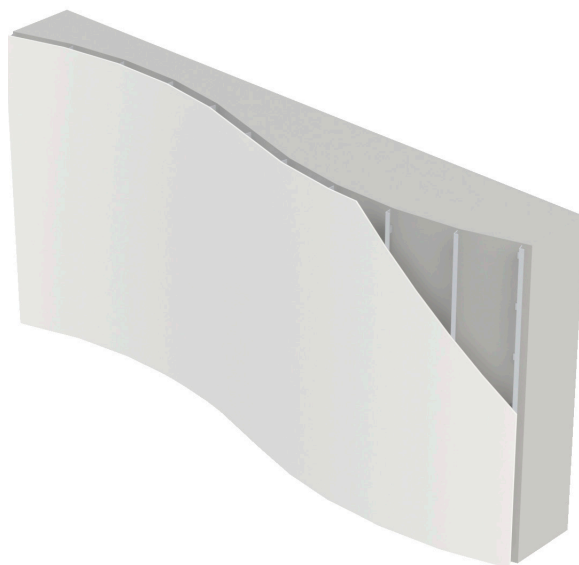


3.9 KRION® curved sheets on curved wall

Using screws and profiles

12 mm

Solid Surface Cladding, 12 mm thick KRION® PORCELANOSA Solid Surface sheets, with a b s1 d0 Euroclass fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. KRION® sheets on a curved wall, using aluminium profiles and white P-404 polyurethane adhesive putty by BUTECH®.

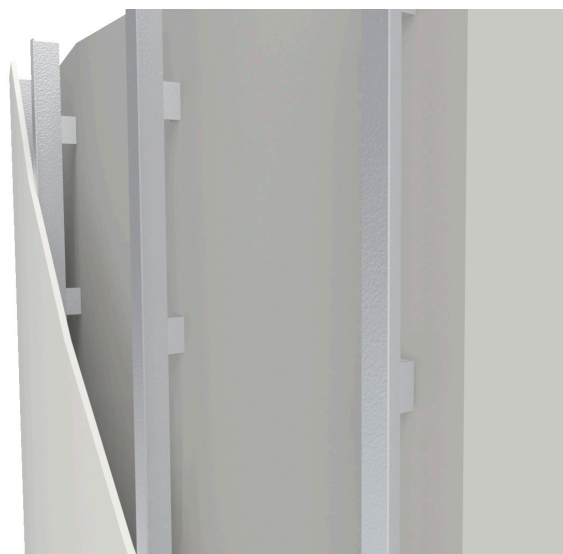


INSTALLATION

Metal profiles should be used to ensure a flat clad surface. First fix L-shaped separators to the wall and then screw the profiles onto them. Next, screw the ceramic sheets to the profiles using the K-FIX system by BUTECH®. Lastly, conceal the holes in the screws with KRION® caps. As a preventive measure, the KRION® sheets should always be rested on part of the skirting or floor so that the adhesive simply prevents the sheet from coming unstuck and falling forward.

As a general rule, up to 4 KRION® sheets can be bonded to the plasterboard without an expansion joint, hence covering an area of 3 x 3.6 m. In special cases, a prior project analysis should be made.¹

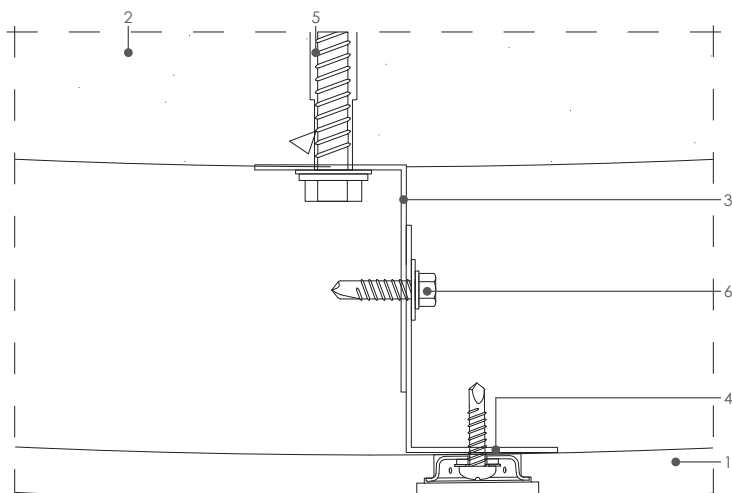
¹ Check the appendix for the maximum size of surfaces without a joint.



1. KRION® 12 MM.
2. CURVED CONCRETE WALL.
3. SECONDARY ALUMINIUM BRACKETS.
4. L-SHAPED ALUMINIUM PROFILE.
5. MECHANIC ANCHORAGE.
6. STAINLESS STEEL SELF-DRILLING SCREW WITH WASHER EPDM.
7. PLUG KRION®.
8. CAP KRION®.

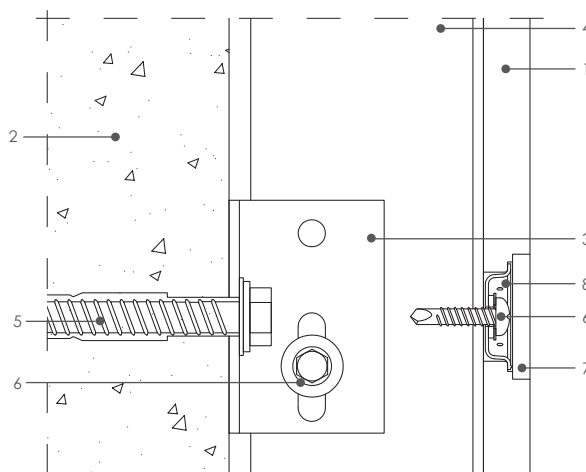
Horizontal section

Scale: 1:2 (mm)



Vertical section

Scale: 1:2 (mm)



3.10 KRION® sheets on backlit wall

Using profiles at the top and bottom

6/12 mm

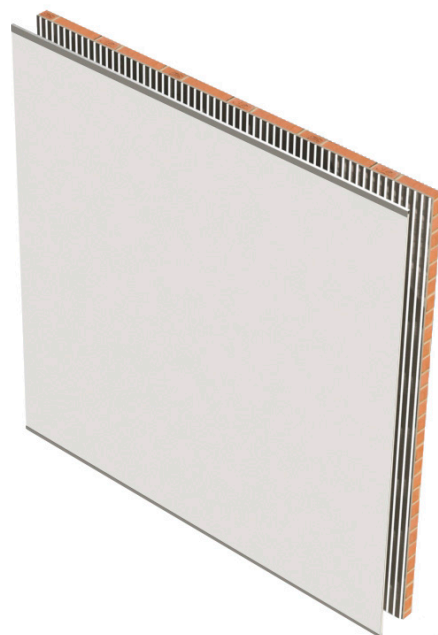
Solid Surface Cladding, 6/12 mm thick KRION® PORCELANOSA Solid Surface sheets, with a b s1 d0 Euro-class fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. KRION® sheets on a backlit wall, using aluminium profiles.

INSTALLATION

U-shaped aluminium profiles must be used to hold the KRION® sheets, also allowing them to be removed when access to the lighting system is needed. First fix a U-shaped profile to the ceiling and another to the floor. Then fit the lighting to the wall to be clad. Lastly, insert the KRION® sheets into the grooves of both metal profiles.²

As a general rule, up to 4 KRION® sheets can be bonded to the plasterboard without an expansion joint, hence covering an area of 3 x 3.6 m. In special cases, a prior project analysis should be made.¹

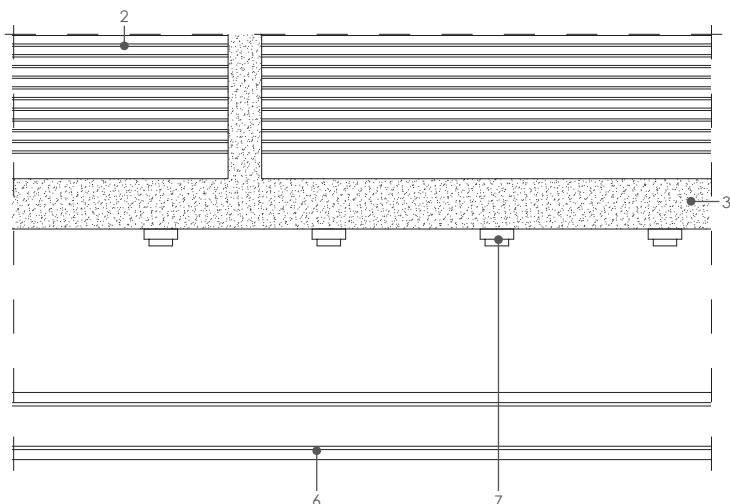
1 Check the appendix for the maximum size of surfaces without a joint.
2 System only valid for KRION® heights lower than 2.50 meters.



- 1. KRION® 12 MM.
- 2. BRICK WALL.
- 3. CEMENT-RENDERED.
- 4. MECHANIC ANCHORAGE.
- 5. HOLLOW CORE PLANK.
- 6. U-SHAPED ALUMINIUM PROFILE.
- 7. LED.

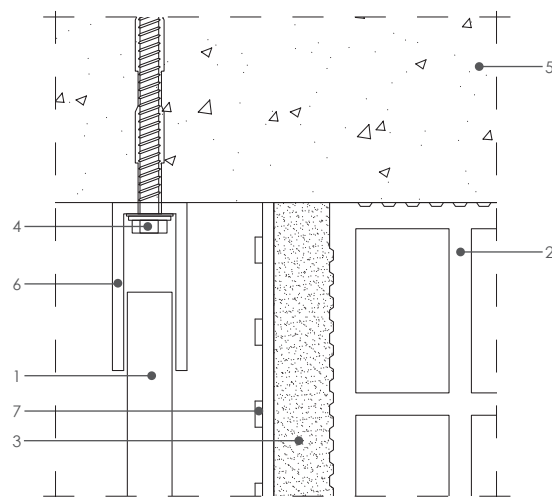
Horizontal section

Scale: 1:2 (mm)



Vertical section

Scale: 1:2 (mm)



3.20 Example of KRION® as an indoor wall covering

Bonded with white P-404 polyurethane adhesive putty by BUTECH®

6/12 mm

Planimetry ok

Surface finish ok

Solid Surface Cladding, 6/12 mm thick KRION® PORCELANOSA Solid Surface sheets, with a b s1 d0 Euro-class fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. Using KRION® on the wall of an operating theatre.



INSTALLATION

The following instructions apply provided that the plasterboard has the necessary flatness, verticality and surface stability.

In accordance with current legislation, only anti-bacterial materials that do not release VOCs can be used. This means that the expansion joints must be sealed with a special silicon for use in operating theatres. Run a line of white P-404 adhesive by BUTECH across the underside of the KRION® sheet and spread it across the whole surface. This is a single component adhesive made of polyurethane. Then bond the sheet to the plasterboard wall, applying uniform pressure so that it is vertically aligned. As a preventive measure, the KRION® sheets should always be rested on part of the skirting or floor so that the adhesive simply prevents the sheet from coming unstuck and falling forward.

As a general rule, up to 4 KRION® sheets can be bonded to the plasterboard without an expansion joint, hence covering an area of 3 x 3.6 m. In special cases, a prior project analysis should be made.

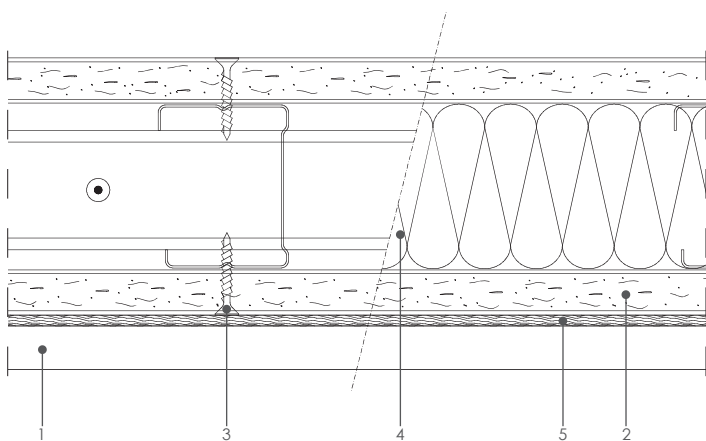
1 Check the appendix for the maximum size of surfaces without a joint.



- 1. KRION® 12 MM.
- 2. PLASTERBOARD.
- 3. SCREW.
- 4. ISOLATION.
- 5. P-404 ADHESIVE.

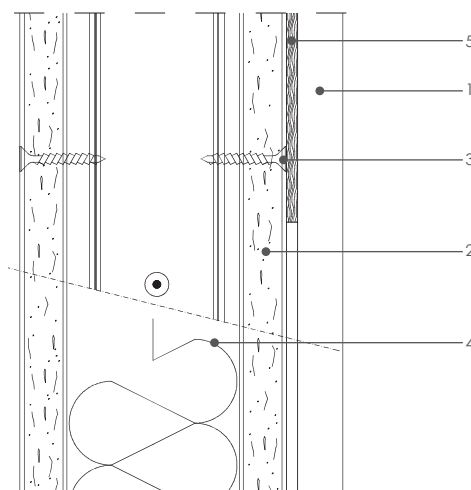
Horizontal section

Scale: 1:2 (mm)



Vertical section

Scale: 1:2 (mm)



3.21 KRION® sheets on wall of operating theatre

Bonded with white P-404 by BUTECH® to wooden battens

6/12 mm

Planimetry ok

Surface finish no ok

Solid Surface Cladding, 6/12 mm thick KRION® PORCELANOSA Solid Surface sheets, with a b s1 d0 Euro-class fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01.

A flat brick wall with an unsuitable surface finish. For this reason, the KRION® will be bonded to wooden battens.



INSTALLATION

Use 2900x40x40mm waterproofed pine battens, laid vertically from floor level upwards, with a distance of 390 mm between each batten. Calculate where to insert the expansion joints prior to laying the KRION® sheets. In this case, the most complex points will be the corners and angles. As a result, shiplap expansion joints will be needed on either side of each corner. Bond the KRION® sheets to the battens with P-404 adhesive, applying a 4mm-thick line of adhesive along the whole batten. The KRION® sheets should rest on a skirting or on the floor so that the adhesive just prevents the sheets from coming unstuck.

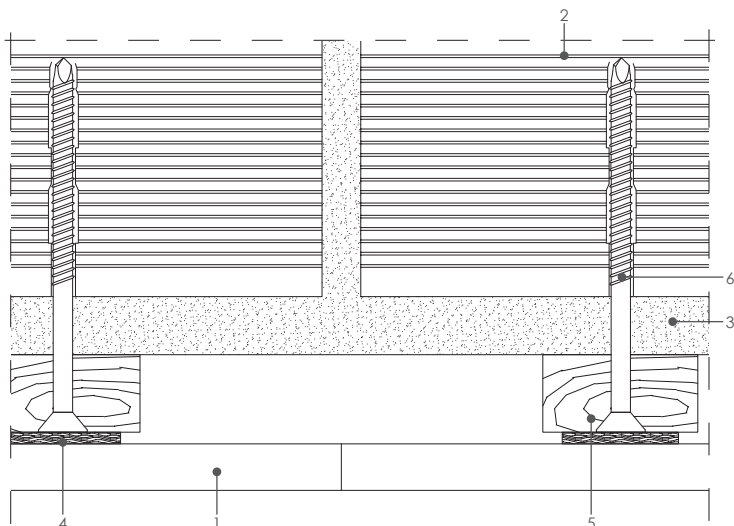
1 For KRION® surfaces bigger than 5 meters you should contact the KRION® technical office.



- 1. KRION® 12 MM.
- 2. BRICK WALL.
- 3. CEMENT-RENDERED.
- 4. P-404 ADHESIVE.
- 5. WOODEN BATTENS.

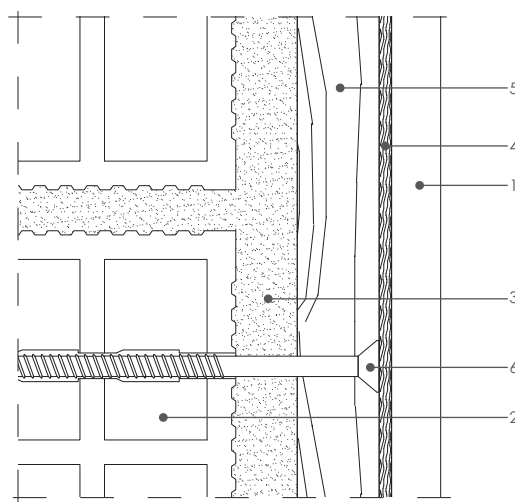
Horizontal section

Scale: 1:2 (mm)



Vertical section

Scale: 1:2 (mm)



3.22 KRION® sheets on lift wall

Bonded with white P-404 polyurethane adhesive putty by BUTECH®

6mm
Planimetry ok
Surface finish no ok

Solid Surface Cladding, 6 mm thick KRION® PORCEL-ANOSA Solid Surface sheets, with a b s1 d0 Euroclass fire rating as per the E 13501-1:2003 standard and unrestricted B1 rating as per DIN 4102. Greenguard Gold and NSF/ANSI 5 Food Equipment Materials certified. Compliant with the Reach Regulation under certificate no. HKHL 1501002788JL. Declared BPA free, as certified in test no. 220.I.1508.076.ES.01. Cladding lift walls with KRION®, using white P-404 adhesive by BUTECH®.

INSTALLATION

When KRION® is used on lift walls, it can be anchored in place in two different ways: either bonded with P-404 adhesive or else hung on the walls.

The sheets should be bonded if the surface of the lift walls allows for this. The bonded KRION® should rest on the floor or on a skirting so that the adhesive does not have to support the whole weight of the sheets.

The sheets should be hung if they cannot be bonded. To do so, metal hook wedge anchors should be fitted, with brass inserts in the KRION®. The hook wedge anchor inserted in the lift walls should be fitted facing the opposite way from the one inserted in the sheets.

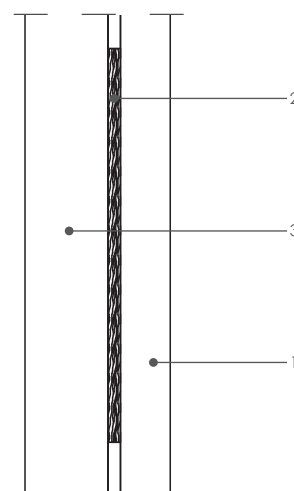
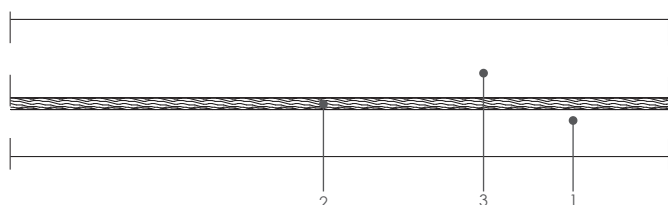
If there are several corners or angles, a prior project analysis should be made.



- 1. KRION® 12 MM.
- 2. P-404 ADHESIVE.
- 3. SUPPORT BASE.

Horizontal section
Scale: 1:1 (mm)

Vertical section
Scale: 1:1 (mm)



A

APPENDIX: USES ON WALLS

A. Maximum surfaces with no joints

1. Maximum surfaces with no joints

General considerations regarding the layout of joints.

Like any other material, KRION® undergoes dimensional changes with differences in temperature.

KRION® 1100 Snow White has a linear expansion coefficient of $0.0000374/^\circ\text{C}$, a value similar to that of aluminium. By using KRION® adhesive, large surfaces can be clad with KRION® with no noticeable joints. To do this, the expansion coefficient of the KRION® sheets and difference in temperature to which they will be exposed must be taken into account. To calculate the linear expansion:

Calculation of linear expansion

$$L_f = L_o [1 + \alpha L (T_f - T_o)]$$

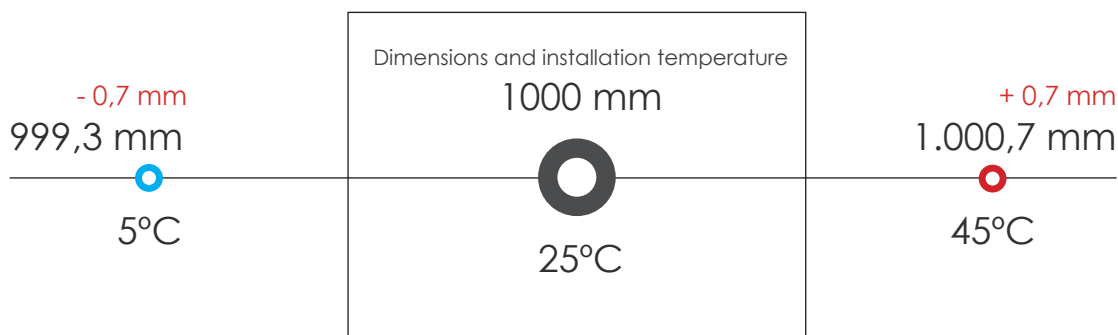
α = Expansion coefficient ($3,72 \times 10^{-5}$)

L_o = Initial length

L_f = Final length

T_o = Initial temperature

T_f = Final temperature



To find the expansion of each sheet, just apply the following formula.

α = Expansion coefficient

L_o = Initial length

ΔT = Temperature increase

$$\Delta L = \alpha \cdot L_o \cdot \Delta T$$

The size of the product or surface on which the KRION® will be laid must be taken into account in order to assess the need for expansion joints (used only on very large surfaces).