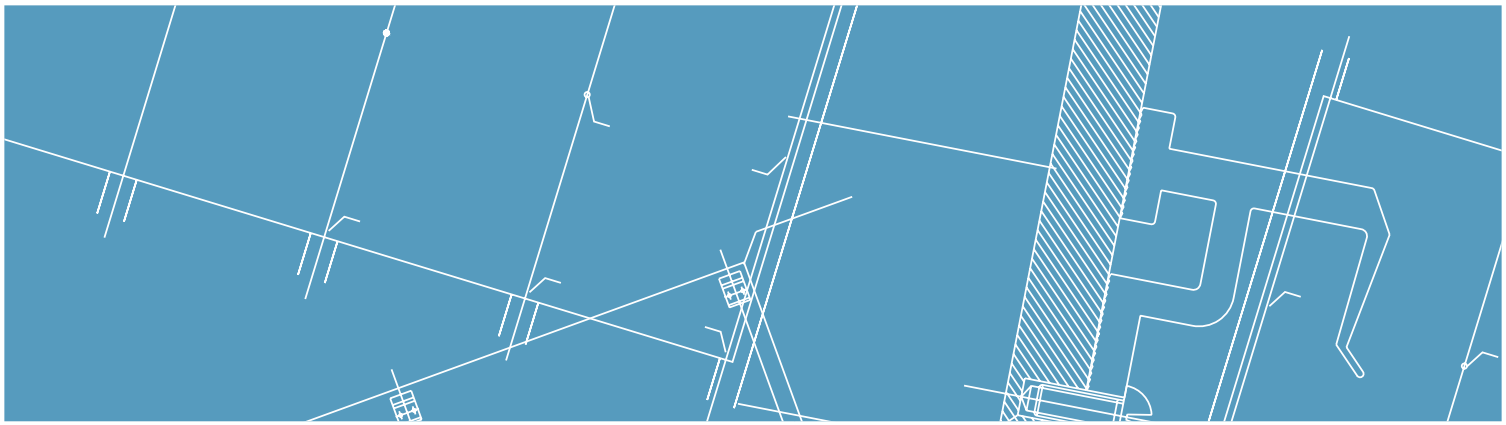
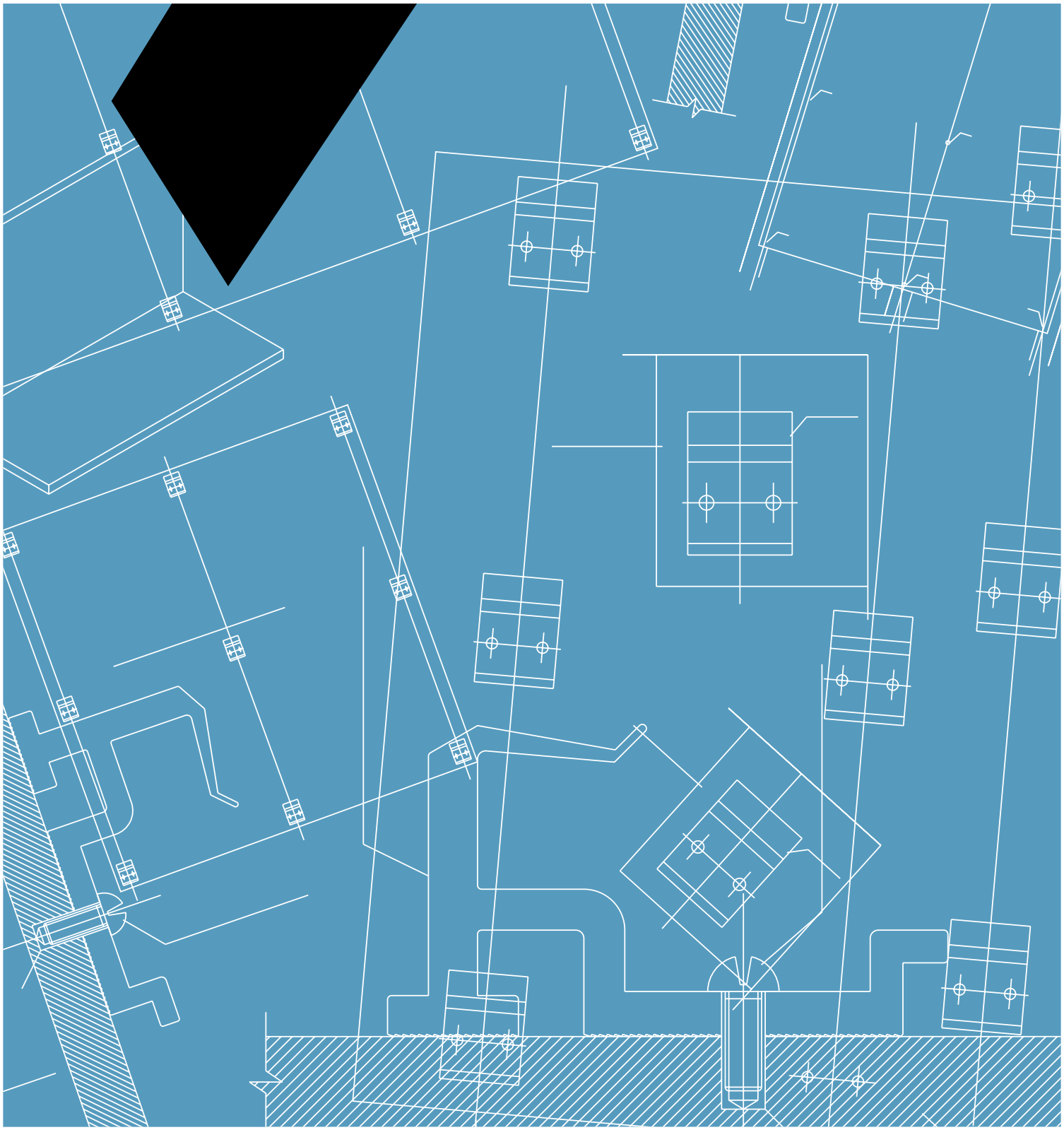


Technical guide

Parklex® Facade



External façade panels

With a product manufactured from natural timber the warmth and quality of wood are clearly evident.

Parklex has developed a wide range of outstanding panels for external use, produced from natural wood. All go through a manufacturing process that provides the natural wood with extraordinary properties of climatic resistance and durability making Parklex Facade ideal for use on building exteriors.

Rain, sun, cold or heat, Parklex covers building façades with natural timber, providing a guarantee of high performance and low maintenance. Don’t just settle for using wood on the inside of your building, encapsulate the structure with the natural beauty of Parklex Facade.

Index

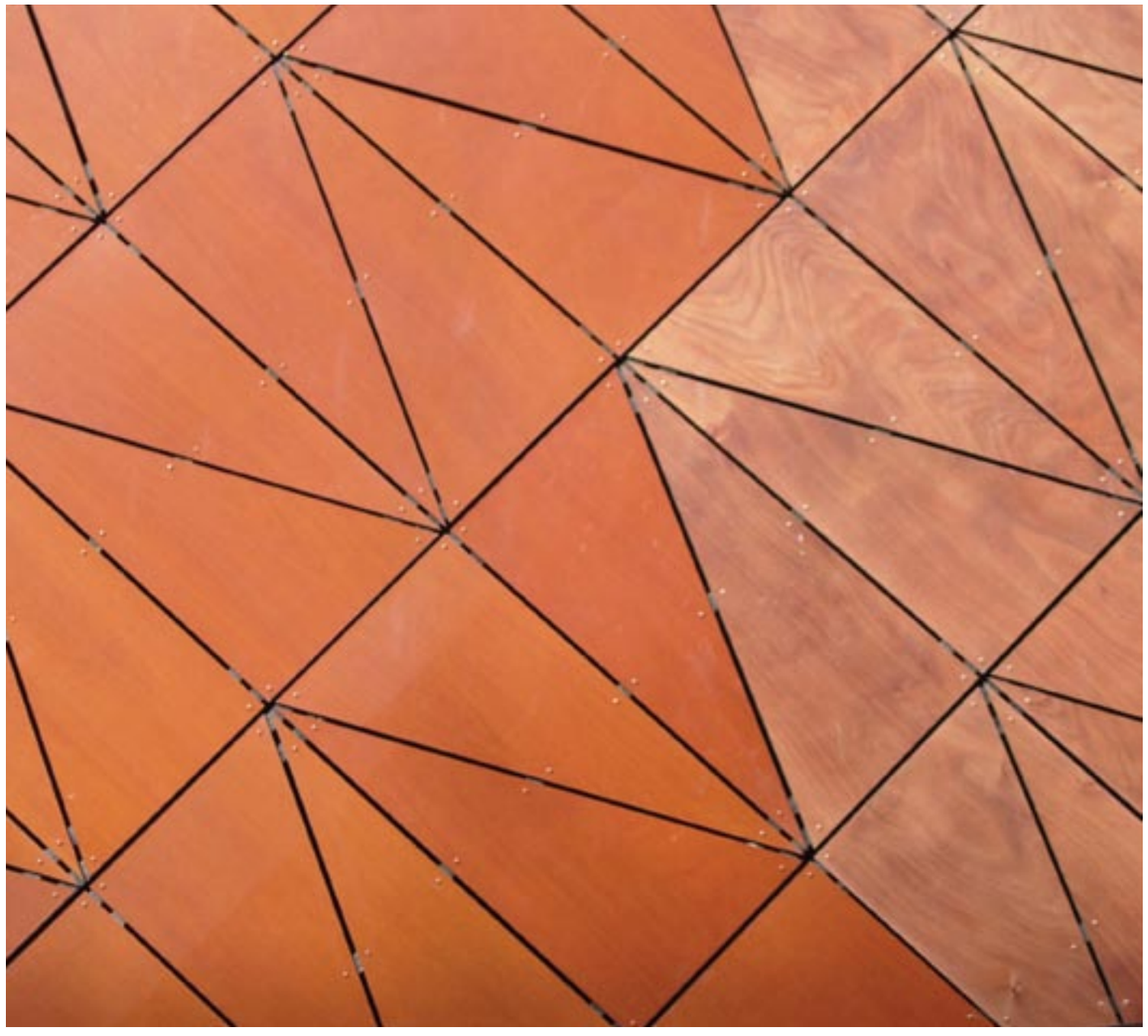
Parklex continuously invest in research and development to provide the best technical characteristics and highest levels of performance. This applies throughout our entire product line, which regularly undergo changes and updates.

For this reason, the technical features and details found in this manual may be modified at any time, without advance notice. This document contains general information that may be complemented and updated on our web page.

www.parklex.com

The following is for guidance purposes only. Users should satisfy themselves that any information or drawings shown are suitable for use under the current building code or regulations in force in the country of use.

1. Product features



High Pressure Laminate panel for external applications

Parklex Facade is a high-density timber faced panel, manufactured with a core of paper fibres treated with thermosetting resins. These are compressed at a high temperature and pressure and protected by an exterior coating highly resistant to UV radiation and weathering.

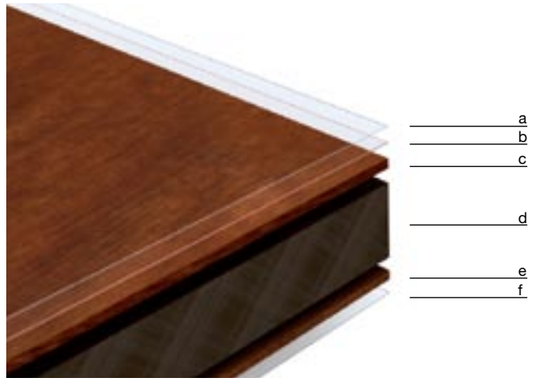
Parklex Facade panels include Everlook®, a component introduced into the wood to provide outstanding life-cycle benefit in terms of colour stability, in all climatic conditions. It also allows the development of new finishes to our range of timber veneers.

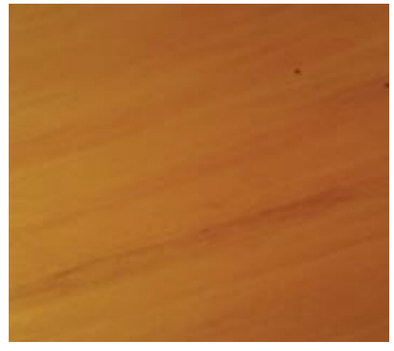
1.1. Panel Core

Parklex Facade is a high-density timber faced panel, manufactured with a core of paper fibres treated with thermosetting resins. These are compressed at a high temperature and pressure and protected by an exterior coating highly resistant to UV radiation and weathering.

1.2. Natural timber

The entire Parklex range is manufactured from natural wood materials, with each panel reflecting unique characteristics such as changes in tone, colour and highlights, with grain and knots. This provides surfaces with an appearance that only products manufactured in natural wood can offer.





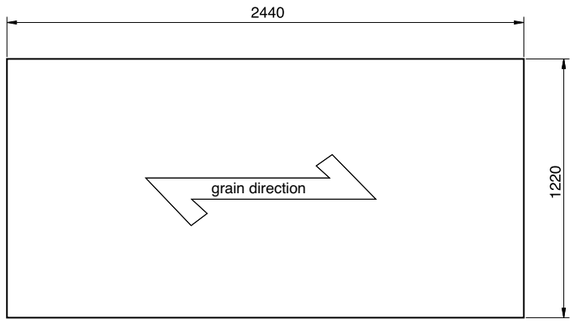
A. Anti-graffiti PVDF film with UV protection
B. Everlook®
C. Natural timber veneer
D. Bakelite core
E. Natural timber veneer balancer
F. Protective film over balancing veneer

1.3. Panel dimensions

Parklex Facade panels measure 2440 x 1220 mm, manufactured in different thicknesses to suite a variety of applications. Standard thicknesses* are: 3, 6, 8, 10, 12, 14, 18, 20 and 22 mm (for other thicknesses, please ask).

As indicated later in this manual, the panels are easy to cut and handle for simple installation and for site surveyed measurements.

*See the chapter “Choosing panel thickness.”



1.4. Quality & Environment

Parklex products may be installed in both internal and external environments. They are subject to constant wear from the sun, humidity and abrasion in extreme traffic areas. For this reason, a great deal of effort and investment in R+D is made, ensuring the durability and stability of Parklex coverings. Since 2003, Parklex has implemented the ISO 9001 Quality Management System in order to ensure our products and the excellent service we provide to our clients are consistently delivered.

Parklex Facade panels are subjected to rigorous testing both at our in-house R & D Department as well as independent, accredited laboratories throughout the world. Our commitment to quality ensures the outstanding performance of our products.

Parklex Facade complies with (and often exceeds) the standards laid down by international certification schemes, including DIT plus (Spain), AVIS Technique (France), Zulassung (Germany), CWCT and BBA (United Kingdom), as well as other national schemes throughout the world.

Being acutely aware of the importance of caring for our environment with responsible, sustainable production, Parklex has earned PEFC certification. This prestigious chain-of-custody certification is a guarantee that Parklex is collaborating with the sustainable maintenance and improvement of forests and the environment.

With this certification, Parklex is clearly demonstrating a commitment to the responsible acquisition of the raw materials used in our products. We want to work with nature, not compromise it. Furthermore, all technical innovations on new product lines will abide with a philosophy of respect for the environment and sustainable production processes. Parklex is manufactured from wood and wood based materials, therefore the long term protection of this natural resource is fundamental to our business.

1.5. Technical datasheet

Tests	Standard	Property or attribute	Measurement unit	Result	
				Parklex Facade S (Standard)	Parklex Facade F (Fire Class)
1. Inspection requirements					
Colour, pattern and surface finish	EN 438-8 Part 5.2.2.3	Due to the fact that wood is a natural product, each veneer may be considered as unique. Colour and structure differences are considered as normal. Singularities such as knots and resin inclusions are not considered as defects, but as a part of the décor. There are differences in light fastness performances depending on the wood species and the source of the wood			
2. Dimensional tolerances					
Thickness (t)	EN 438-2 Part 5	6,0 ≤ t < 8,0	mm	± 0,40	
		8,0 ≤ t < 12,0		± 0,50	
		12,0 ≤ t < 16,0		± 0,60	
		16,0 ≤ t < 20,0		± 0,70	
		20,0 ≤ t < 25,0		± 0,80	
Length and width	EN 438-2 Part 6	–	mm	+10 / - 0	
Edge straightness	EN 438-2 Part 7	–	mm/m	1,5	
Edge squareness	EN 438-2 Part 8	–	mm/m	1,5	
3. Physical properties					
Dimensional stability at elevated temperatures	EN 438.-2 Part 17	Cumulative dimensional change (t≥6 mm)	% max Longitudinal	0,3	
			% max Transversal	0,6	
Resistance to impact with large diameter ball	EN 438-2 Part 21	Maximum height for which no visible surface cracking or imprint greater than 10mm (t≥ 6mm)	mm	≥ 1.800	
Tensile strength	EN ISO 527-2	Longrain	MPa	≥ 60	
		Crossgrain			
Determination of graffiti resistance	ASTM D 6578:2000	Cleanability level	Permanent blue marker	4	
			Spray red paint	4	
			Wax black crayon	1	
			Water based black marker	2	
4. Weather resistance requirements					
Resistance to UV light	EN 438-2 Part 28 Rating according to EN 20105 – A02	Contrast	Grey scale rating	≥ 3	
		Aspect	Rating	≥ 4	
Resistance to artificial weathering (including light fastness)	EN 438-2 Part 29 Rating according to EN 20105 – A02	Contrast	Grey scale rating	≥ 3	
		Appearance	Rating	≥ 4	
5. CE Safety requirements					
Reaction to fire	EN 13.501-1	Euroclass t ≥ 6 mm	Classification	D-s2,d0	B-s2,d0
		Euroclass t ≥ 8 mm		C-s1,d0	B-s2,d0
Water vapour permeability	EN 438-7 Part 4.4	Wet cup method	μ	110	
		Dry cup method		250	
Resistance to fixings	EN 438-7 Part 4.5	Screw holding value t ≥ 6 mm	N	> 2.000	
		Screw holding value t ≥ 8 mm		> 3.000	
		Screw holding value t ≥ 10 mm		> 4.000	
Flexural strength	EN ISO 178	Longrain	MPa	≥ 80	
		Crossgrain		≥ 80	
Flexural Modulus	EN ISO 178	Longrain	MPa	≥ 9.000	
		Crossgrain		≥ 9.000	
Thermal resistance/Conductivity	EN 12664	Thermal conductivity (λ)	W/m K	0,261	0,263
Resistance to climatic shock	EN 438-2 Part19	Appearance	Rating	≥ 4	
		Flexural strength	Ds Rating	≥ 0,95	
		Elastic modulus	Dm Rating	≥ 0,95	
Density	EN ISO 1.183	Density	g/cm³	≥ 1,35	
Resistance to wet conditions	EN 438-2 Part 15	Moisture absorbed	%	≤ 5	≤ 8
		Appearance	Rating	≥ 4	

2. Transport

It is important to observe specific guidelines when transporting these panels, in order for them to arrive at their final destination in perfect condition.

The panels must be correctly strapped down for transport, bearing in mind that they slide over each other easily and may become damaged. They must **always** be transported horizontally.

The panels must never be transported loose or with broken straps. For short trips, inside workshops or at the construction site, fasten the panels using straps whilst protecting the edges in contact with the straps with cardboard protectors. The presence of foreign bodies between panels or contact with objects with sharp edges or corners must be avoided. When moving panels on the same stack, lift them so that they do not scrape against each other.

3. Storage

Parklex Facade is manufactured from natural wood, therefore it is essential that panels be stored under satisfactory conditions, i.e., horizontally and with appropriate humidity levels. This will prevent material deterioration that could damage the appearance and performance of these panels, once installed.

Parklex panels **must** be stored according to the following instructions:

Horizontal storage

Panels must be stored in a horizontal position, never in a vertical or inclined position. It is essential to keep them from resting on objects or debris that prevent the panels from being completely horizontal.

Optimal storage conditions

To prevent deformation, store in a clean, dry place, protected from rain and sun. Recommended storage conditions include a Temperature of 23ºC (±2ºC) and a Relative Humidity of 50% (±5%).

Climatic and humidity differences on the two panel surfaces should be avoided.

Storage time should never exceed five months from the date indicated on the delivery invoice.

Remove the protective film

Panels for external use are covered with a protective film on their exposed side, which must be removed immediately after installing the panel, as prolonged exposure to the elements will cause the adhesive on the film to soil the panel.

4. Handling

To facilitate installation and satisfying the specific requirements of each project, panels may be easily handled for cutting and drilling, making Parklex Facade an extremely manageable product. However, when doing so, it is important to follow minimum safety guidelines.

Standard requirements should be kept in mind when handling Parklex panels, especially with regards to:

- Dust removal.
- Dust collection.
- Fire precautions, etc.

Due to the possible presence of sharp edges, protective gloves should always be worn when handling Parklex panels. Contact with dust from HPLs does not normally present a problem, although some people may be sensitive or even allergic to it.

4.1. Cutting

Parklex panels may be machined using conventional commercial grade carpentry machines equipped with hard metal accessories.

Due to the high density of Parklex Facade, cutting speeds must be slower than those used with natural wood.

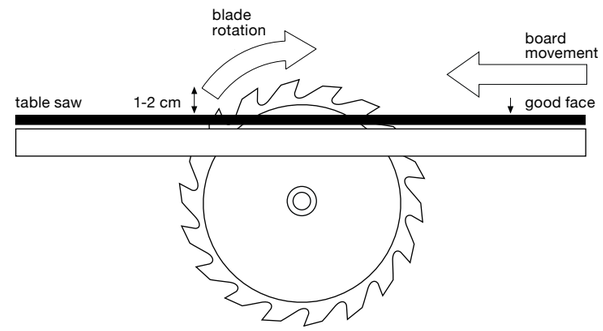
Parklex Facade panels may be cut with stationary circular table saws or with handheld circular saws.

If many panels are to be cut, stationary table saws must be equipped with diamond-tipped accessories. If not, or if manual machines are being used, the accessories must be made from hard metal plates or “Widia” (tungsten carbon), with a hardness of K-05 and K-01.

Accessories made from high-speed steel or that contain a high level of cobalt may be used to machine Parklex, although lower sharpening performance will be obtained.

Circular saw blades must have characteristics similar to those used to machine high pressure laminate or melamine panels. Blade diameters must be between 250 and 300 mm for circular table saws and between 150 and 190 mm for handheld saws. Flat, trapezoidal tooth profiles are the most efficient. The number of teeth should be between 24 and 60, depending on the diameter.

The blade teeth should always enter on the panel’s good face. Table saws generally have the good face pointing up, as the blade rotates with the blade cutting on the ‘downstroke’. Hand held circular saws generally cut on the ‘upstroke’, therefore the panel should face down.



4.2. Drilling

The panels must be drilled using hard metal or “Widia” tools. Supporting sheets (martyr boards) must be used under the panel in order to drill a clean hole, without ‘breakout’.

5. Ventilated façades

Parklex is designed for installation as a ventilated façade system. This provides important advantages, such as permeability, water and sun protection and thermal and acoustic insulation.

Parklex Facade are decorative timber veneer panels that must be installed as a ventilated façade. Ventilated façades are an optimal system, thanks to the rational separation of the thermal insulation, the load-bearing structure and the Parklex Facade panels.

Ventilated façades create a “moving air chamber” between the panels and their next cladding element, such as a layer of insulation or the cladding itself.

In order to allow the air to circulate, it is necessary for there to be openings at the base and crown of the cladding. If the façade is not continuous and it is divided into different sections, there must also be openings at the bottom and the top, as well as in the spaces for doors and windows.

Permeability

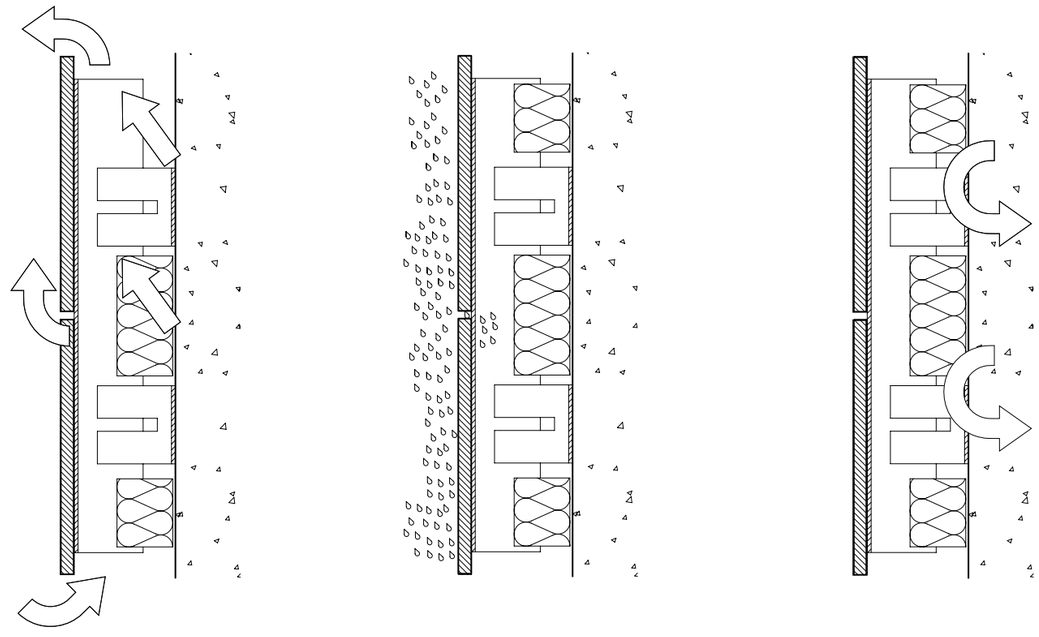
Moving air diffuses water vapour from the inside out and facilitates the ‘breathing’ of the façade, preventing condensation from forming behind the panels.

Water protection

Moving air provides protection from the elements, because it assists in preventing rain water from infiltrating the building structure.

Thermal insulation

The load-bearing structure is insulated from the exterior structure, eliminating thermal bridges. In this manner, temperature fluctuations are reduced in the interior, leading to energy savings.



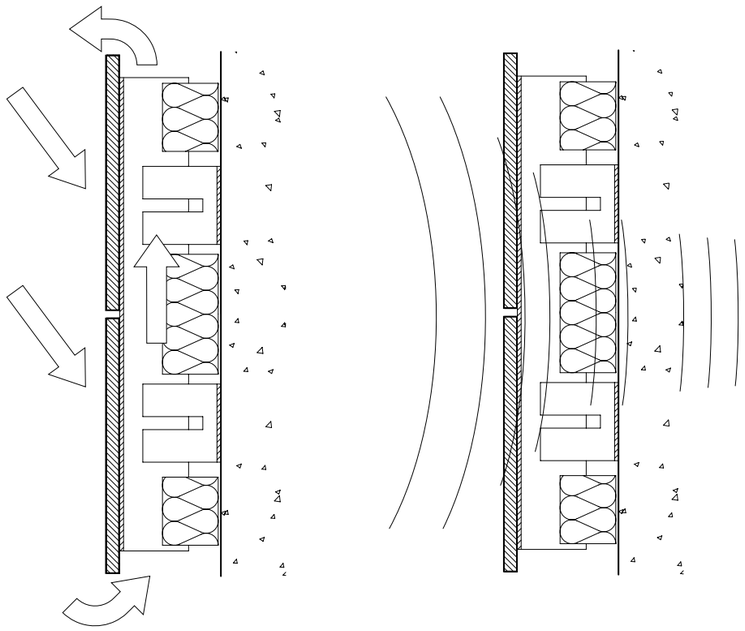
Solar protection

Thermal comfort is improved inside the building by preventing overheating in the summer, as it facilitates ‘breathing’ of the façade. This assists by reducing the amount of thermal energy that reaches the inside of the building.

The internal structure is protected from direct radiation and from the elements.

Acoustic protection

Since this is a compound system with several layers, noise absorption is created.



6. Installation

Correct installation is essential for the required performance of Parklex Facade panels.

Parklex Facade is a high-quality construction product installed as a vertical decorative covering on the façade. Parklex Facade panels have been developed specifically for use in ventilated façade claddings.

Parklex Facade is installed on vertical walls, formed with standard 10 mm horizontal and vertical joints.

6.1. General instructions*

For correct panel installation it is important to follow the general installation instructions described below. This ensures optimal performance over time, which prevents premature deterioration and ensures its perfect performance.

Parklex Facade has four different mounting systems: exposed screw or rivet mounting, hidden mounting using plugs, special profile brackets and hidden mounting using adhesive systems. All systems have the following installation characteristics in common:

** In the event that a Technical Document exists that applies to a specific installation system, such as the Avis Technique (CSTB) in France, the British Board of Agremènt (BBA) and Centre for Window and Cladding Technology (CWCT) in the United Kingdom, the Zulassung (DIBt) in Germany or the DITplus (IETCC) in Spain, it shall take precedence over the general recommendations described here. In addition, building insurers may also have there own applicable standards*

6.1.1. Ventilated chamber

Parklex Facade panels must be installed as a ventilated façade; therefore, they must be separated from the wall face by profiles, which are installed vertically, forming a chamber with a minimum free ventilated space of 30 mm.

In the event that some type of insulation will be installed, a double-profile structure or a single-profile structure with adjustable supporting elements must be installed, ensuring that the chamber is maintained.

To permit air circulation in the ventilated chamber, the air intake and output must be correctly proportioned.

Head ventilation

The ventilation at the head of the chamber must be ≥20 mm. As at the base, this ventilation space must be left whenever there is an interruption in the face of the Facade panels.

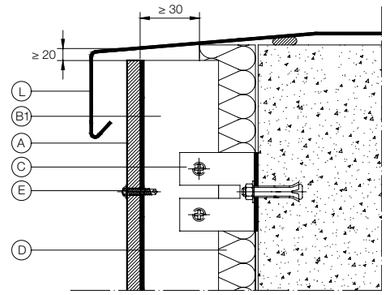
Subdividing the chamber

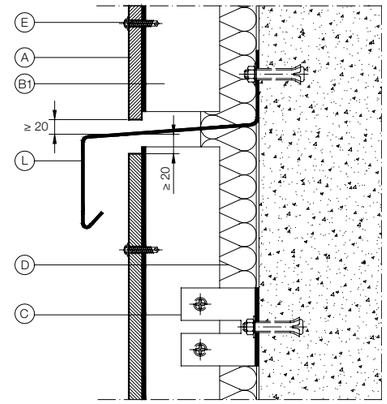
It is recommended to divide the ventilation chamber vertically to prevent any possible spread of flames, in the event of a fire. To do this, create ventilated compartments approximately every 6m.

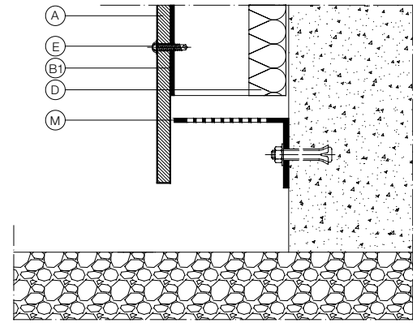
To prevent the spread of fire, fireproof insulating materials or continuous horizontal firewalls (made from stainless steel or intumescent materials, for example) may be used.

Base ventilation

The ventilation at the base of the chamber must be ≥20mm. This ventilation space must be left whenever there is a new base i.e. if the Facade panels are interrupted by windows or other elements.







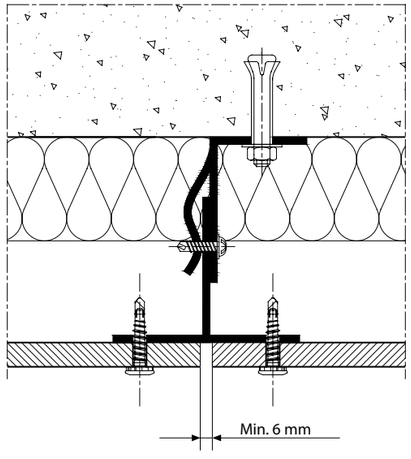
A. Parklex Facade Panel
B1. Aluminum vertical profile
C. Aluminum Fixing Bracket
D. Insulation
E. Screw
F. Adhesive System
M. Insect Mesh
L. Formed Sheet metal

6.1.2. Expansion joints

It is necessary to leave expansion joints around the perimeter of all panels and where they meet with other materials to ensure they can absorb any expansion movements.

The thickness of these joints depends on the panel dimensions and esthetics.

As an example, for panels measuring 2.44 x 1.22 m, these joints must be at least 6 to 8 mm, although it is highly recommended to leave 10 mm joints whenever possible. It is recommended not to seal the joints with flexible materials, as this may lead to an accumulation of dirt around the edges of the panels.



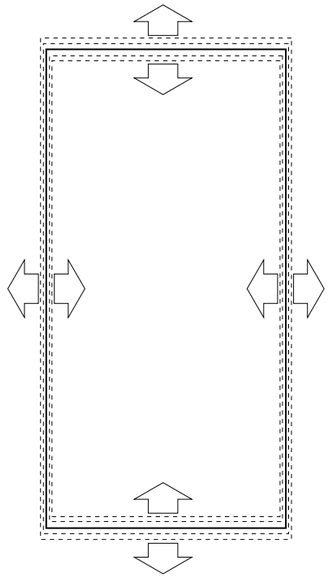
Expansion joint for an exposed mounting system

6.1.3. Panel movement

Parklex Facade panels are made from natural wood.

As wood is a living material it undergoes dimensional changes due to variations in humidity and temperature.

Therefore, it is important for the method of installation to permit panel movement, enabling their free expansion and contraction.



6.1.4. Choosing panel thickness

The required panel thickness is selected according to the element to be covered (walls, soffits or fascias).

The thickness of a panel influences the distance between the supporting profiles; the greater the thickness, in general the greater the possible distance between the profiles. This may vary, depending on the specific type of installation.

The ideal thickness for external facades is 8 or 10mm.

Thicknesses of 3 or 6mm are not recommended, except in very special cases. If you are considering the use of these thicknesses, it is essential to consult the technical department at Parklex.

6.1.5. Substructure

To facilitate air circulation behind the panels, a substructure of vertical profiles must be installed.

This substructure must be designed according to the published wind load for the area and in such a way that meets all statutory requirements. Likewise, keep in mind the inclination of the façade, the fastening system chosen, the thickness and the dimensions of the Parklex Facade panel being installed. In addition, it must be well protected against corrosion and rotting, regardless of the material or system used.

Wood substructure

If the substructure is built from timber battens, they must be suitably treated. It is recommended to install PVC joints or closed-cell polyethylene foam over the exposed surfaces, as these protect, improve and extend their service life.

This type of substructure may be used in dry areas, generally without frequent rainfall.

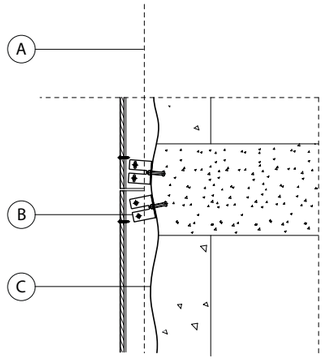
Metal substructure

If located in rainy or humid locations, it is preferable to use metal vertical profiles made from galvanized steel or aluminum.

In areas that suffer obvious effects from the sea, stainless steel profiles must be used, or those made from an appropriate anodized aluminum.

Vertical alignment

Primary structures frequently have significant vertical and horizontal variations. In these cases, the use of profiles with brackets that allow for the adjustment of the vertical alignment is recommended.

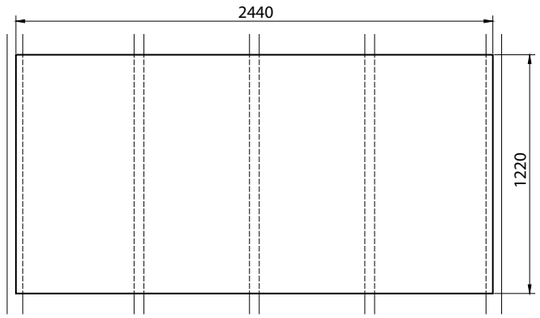


A. Line of reference
B. Fixing bracket
C. Irregular wall face

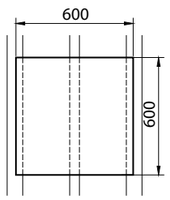
6.1.6. Three support points

Parklex Facade panels must be fixed to at least three points of structural support.

The distances between support points depend on the mounting type and the thickness of the panel. The instructions regarding distances that come with the various, commercially available fixing systems may be followed, as long as there are at least three points of support in each direction.



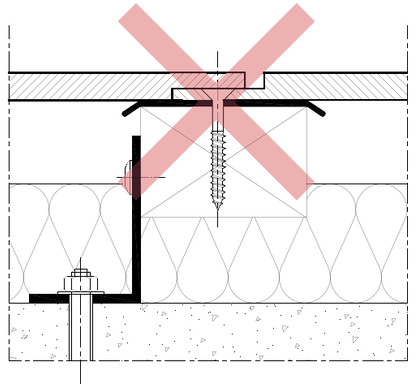
Profile distribution for 10 mm Parklex Facade.



Example of panel dimensions where it is mandatory to include 3 profiles (3 support points), regardless of the thickness.

Tongue-and-groove system

Panel installation using a tongue-and-groove system is not possible, as this type of system uses screws with counter-sunk heads. These screws do not allow free panel movement, which is why they are not acceptable for installing Parklex Facade panels.



6.2. Fixing Systems*

Parklex Facade has four different fixing systems: Exposed screw or rivets, Hidden fixings using plugs, installation using special panel brackets combined with horizontal rails and hidden fixing using adhesive systems.

Exposed screw or rivets fixing

Hidden fixing using plugs

Hidden fixing with brackets and horizontal rails

Hidden fixing with an adhesive system

** In the event that a Technical Document exists that applies to a specific installation system, such as the Avis Technique (CSTB) in France, the British Board of Agremènt (BBA) and Centre for Window and Cladding Technology (CWCT) in the United Kingdom, the Zulassung (DIBt) in Germany or the DITplus (IETCC) in Spain, it shall take precedence over the general recommendations described here.*

6.2.1. Exposed screw or rivet fixing

Parklex Facade may be installed using visible mechanical fasteners, such as screws or rivets lacquered in a shade similar to the panel veneer.

The panels are mounted on vertical profiles to create a ventilated chamber behind the panels.

In the event that the wall is not perfectly vertically aligned, adjustable brackets are used to regulate the depth of the profile installation.

Distance between vertical profiles

Thickness	Maximum distance
3 mm	300 mm
6 mm	400 mm
8 mm	600 mm
10 mm	700 mm
≥12 mm	800 mm

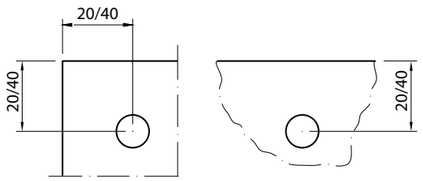
There must always be at least 3 fastening points in each direction for every panel.

Distance between fasteners

Thickness	Maximum distance
3 mm	300 mm
6 mm	400 mm
8 mm	600 mm
10 mm	700 mm
≥12 mm	1000 mm

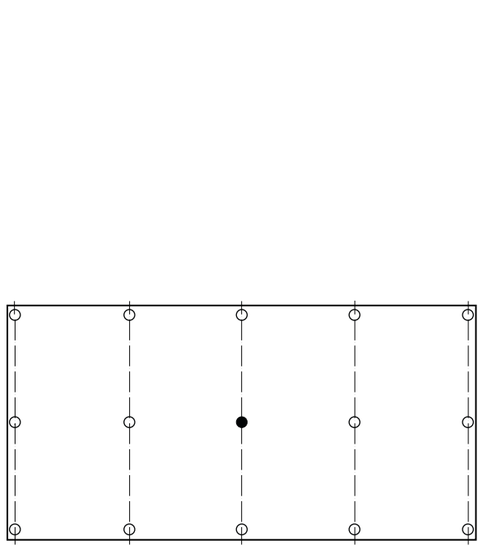
Distance from the edges

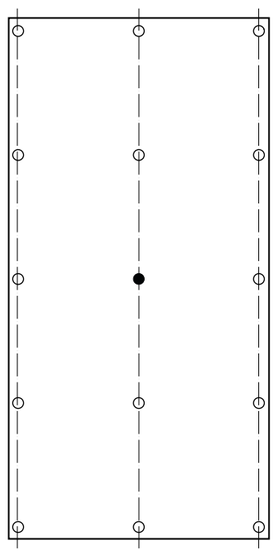
The distance between the centre point of the screw/rivet and the panel edge must be between 20mm and 40 mm.



Fixed point and floating point

All mounting points for Parklex Facade panels must be floating (with a diameter of at least 3mm larger than that of the screw or rivet; see the next chapter.), except for one, which must be fixed. This is the point around which the panel will expand and contract. This fixed point must be as close as possible to the geometric center of the panel.





Fixed Points
Floating Points

Panel Fixings

Parklex Facade may be installed using visible mechanical fasteners, such as screws or rivets lacquered in a shade similar to the panel veneer.

TWD-S-D12

Screw for fixing to timber battens.

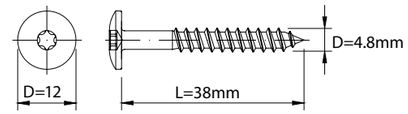
SX3-L12

Screw for fixing to aluminum profiles. A special screwdriver tip supplied by Parklex must be used to insert this type of screw

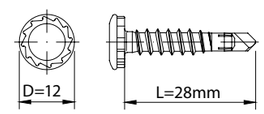
AP16

Rivet

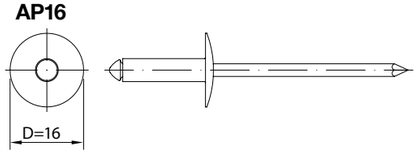
TWD-S-D12



SX3-L12



AP16



Drilling

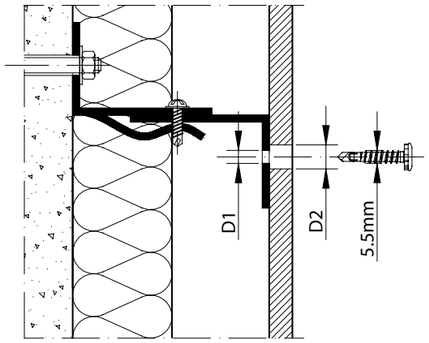
Parklex Facade panels undergo dimensional variations due to temperature and humidity and must be taken into account when drilling holes through the panel.

If using screws, the diameter of the hole must be at least 2-3 mm larger than the diameter of the screw shank, except at one fixed point per panel. This fixed point must be as close as possible to the geometric center of the panel. Countersunk screws must NEVER be used, as they prevent panel movement as the result of dimensional changes.

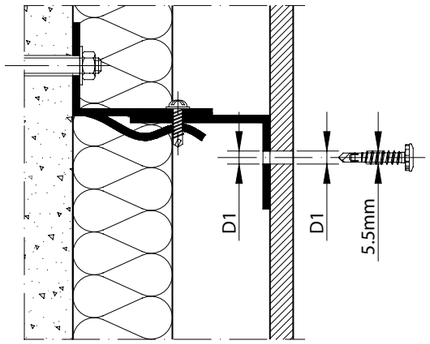
If using rivets, the diameter of the hole must be 3.5 mm larger than the diameter of the rivet shank, except at one fixed point per panel. This fixed point must be as close as possible to the geometric center of the panel.

Screw

Aluminum profile (SX3- L12 5.5x28)



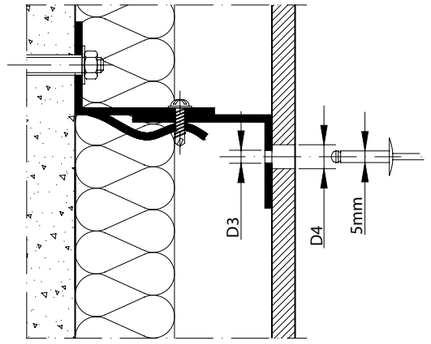
Floating point



Fixed point

Rivet into Aluminium

Aluminum profile (AP16 5x16, 21)



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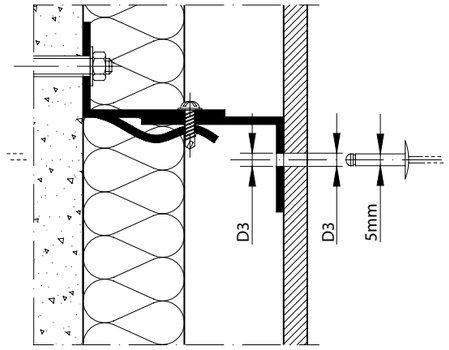
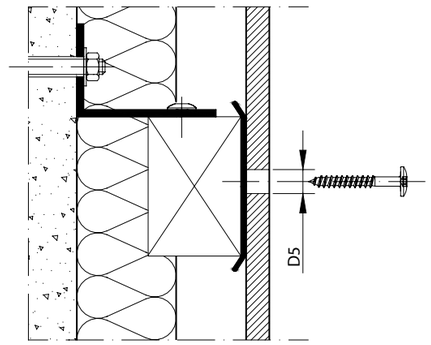


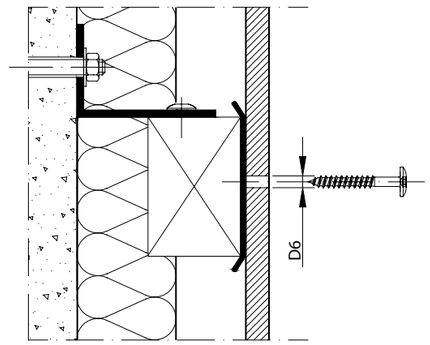
Fixed point

Screw into Timber

Timber batten (TWS D12 4.8xL)



Floating point



Fixed point

D1. Screw diameter + tolerance
D2. Screw diameter + 3 mm

D3. Rivet diameter + tolerance
D4. Rivet diameter + 3.5 mm

D5. Screw diameter + 3mm
D6. Screw diameter + tolerance

6.2.2. Fixing with plugs

Parklex offer plugs in the same finish as the façade panels, for hidden fastening using caps measuring 10.75 mm in diameter.

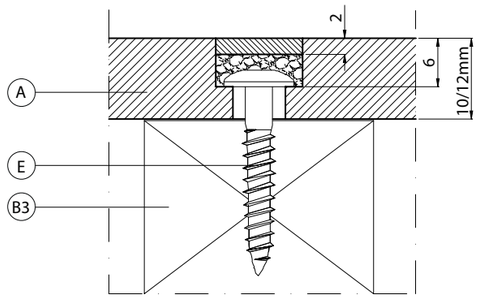
This system may only be used with panels that are 10 or 12 mm thick, and must be inserted with great care.

Fixing

In order to fix the panels using this system, follow the instructions in section 6.2.1.

Fixing screw

The screw must have a head that is smaller than the diameter of the hole (minimum 2 mm), so that panel movement is facilitated.



A. Parklex Facade Panel
B3. Timber batten
E. Screw

6.2.3. Hidden fixing with back fixed brackets and horizontal rails

In cases where aesthetics are important, this system enables panels to be installed without visible fixings on its exposed side.

Distance between vertical profiles

In this type of installation, there is a primary substructure of vertical profiles that create the necessary air chamber.

It may be possible to increase the distance between the vertical carrier rail than using and exposed fixing method.

Thickness	Distance
10 mm	800 mm
12 mm	1.000 mm

Distances between horizontal carrier rails

Carrier rails are installed horizontally to the front of the vertical profiles, using fixing screws.

The distance between the horizontal profiles must be ≤600 mm, with a minimum of three horizontal profiles for each panel.

Installation with back fixed brackets and horizontal carrier rails.

Panel fixing brackets are screwed onto the back of the panel using stainless steel milling screws (Ø6 and 11.5 mm in length). These panel fixing brackets are machined with an M8 metric hole, which is used to adjust the height (using a bolt) or to lock them in place.

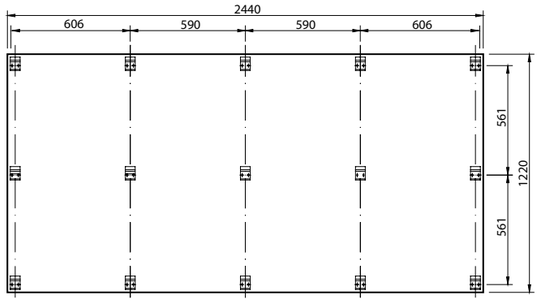
To fasten the milling screws to the panel, drill a hole 5 mm in diameter with a Shoulder Drill Bit. The edge of the screw will cut it's own thread in the panel.

Distances between mounting points

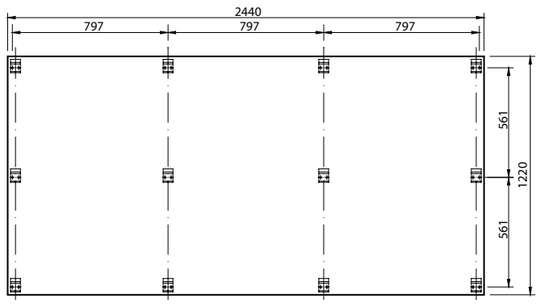
Thickness	Distance
10 mm	≤600 mm
12 mm	≤800 mm

There must always be at least 3 panel fixing brackets in each direction for every panel.

Keep in mind the importance of a good lay-out. Parklex sells the special carrier rails, as well as the panel fixing brackets, the milling screws and the height adjustment screws.



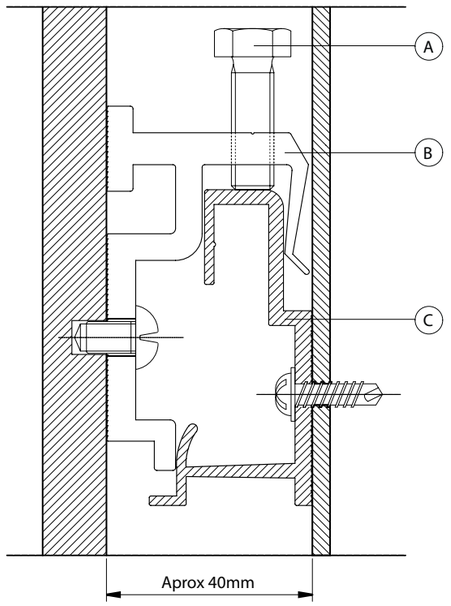
Parklex Facade 10 mm



Parklex Facade 12 mm

Height adjustment screw

For perfect horizontal alignment of Parklex Facade panels, use height adjustment screws. This screw enables you to correct small deviations in the horizontal line of installation for panel fixing brackets and carrier rails.



A. Height adjustment screw
B. Panel fixing bracket
C. Horizontal carrier rail

6.2.4. Hidden fixing with an adhesive system

Currently, Parklex has several certified processes for mounting Parklex Facade panels using structural adhesive systems. Due to the continuous variations that occur in adhesive system designs, as well as in their application procedures, we recommend that you contact Parklex for the application procedures currently in use.

Distance between vertical profiles

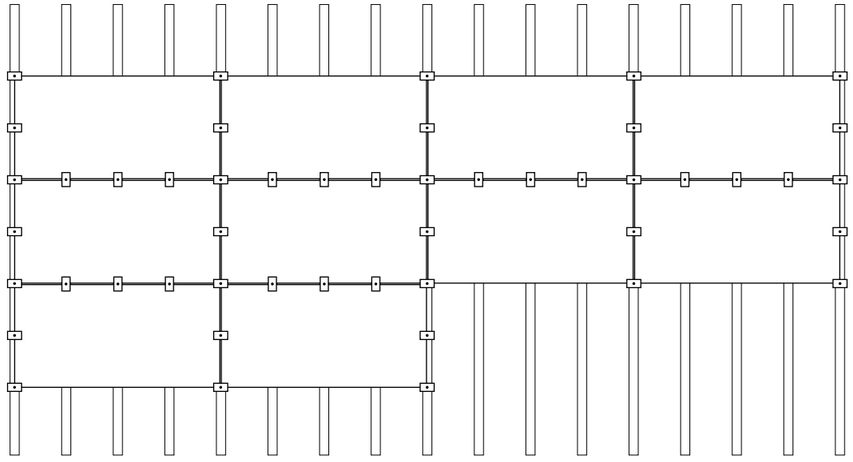
In installations using adhesive systems, the distances between profiles must be reduced when compared to those using screws or rivets, in order to ensure good adhesive polymerization.

Thickness	Distance
8 mm	400 mm
10,12 mm	600 mm

There must always be at least 3 fastening points in each direction for every panel.

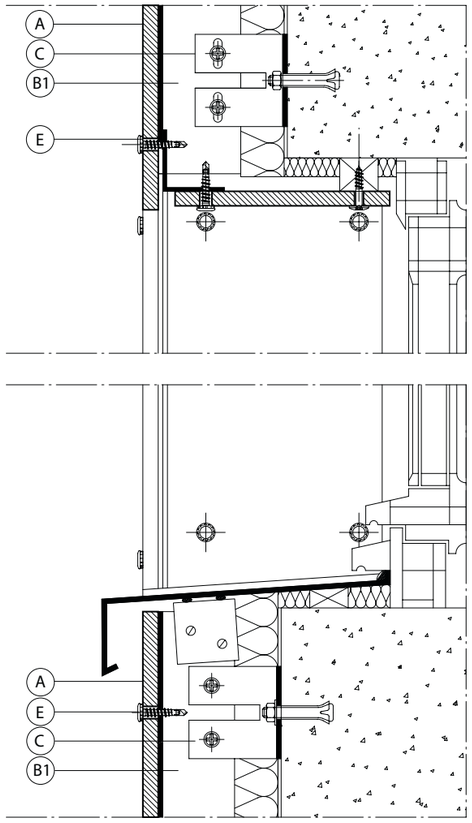
Clamps

Once Parklex is installed using this system and until the adhesive polymerizes, clamps must be placed around the perimeter of the pieces (every 200-300 mm, especially at the corners). It is essential that applying pressure beyond the thickness of the double-sided tape is avoided.

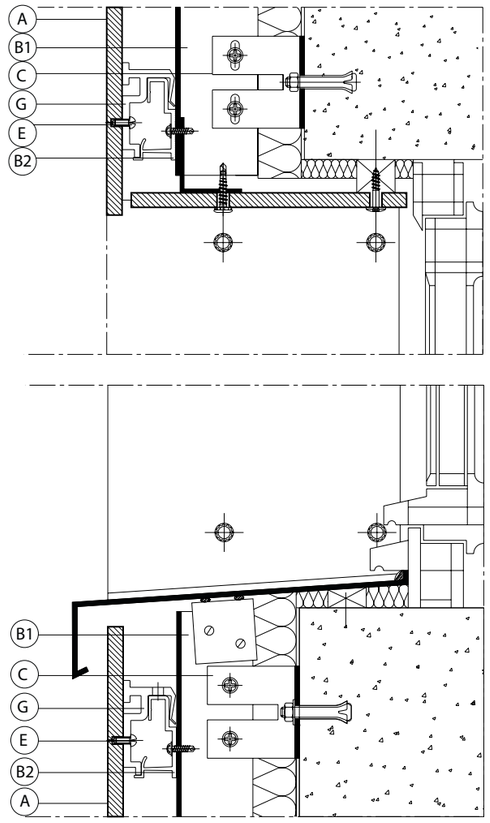


6.3. Window details

Exposed screw or rivet fixing



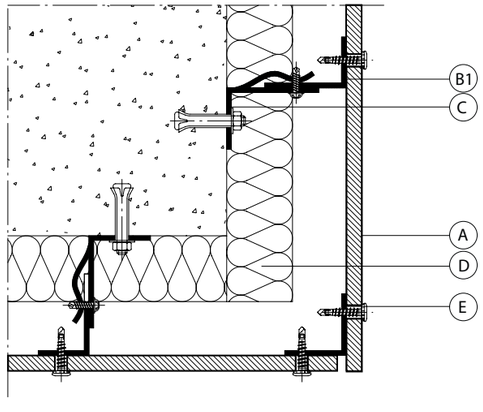
Hidden fixing with back fixed brackets and horizontal rails

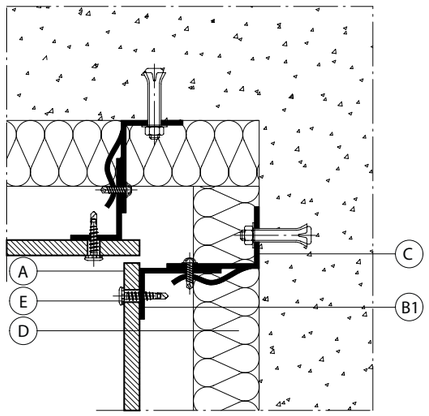


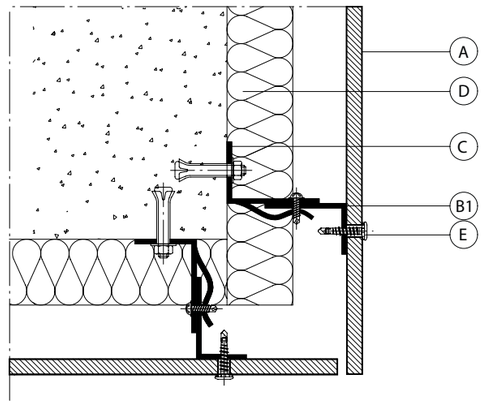
A. Parklex Facade
B1. Aluminum profile
B2. Horizontal carrier rail
C. Aluminum fixing bracket
D. Insulation
E. Screw
G. Panel fixing bracket

6.4. Corner details

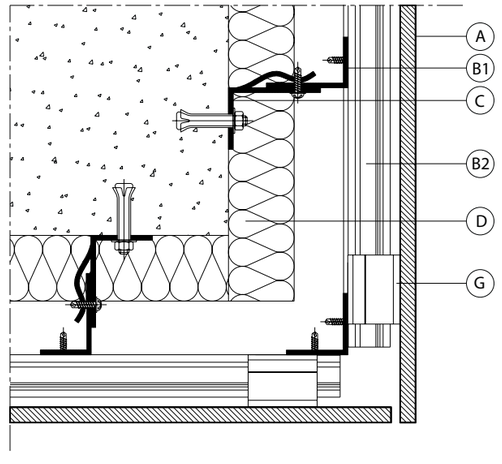
Exposed screw or rivet fixing

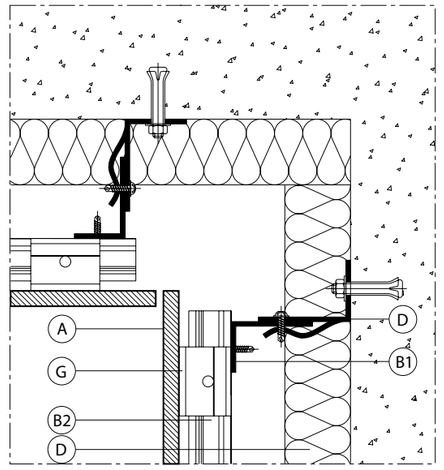


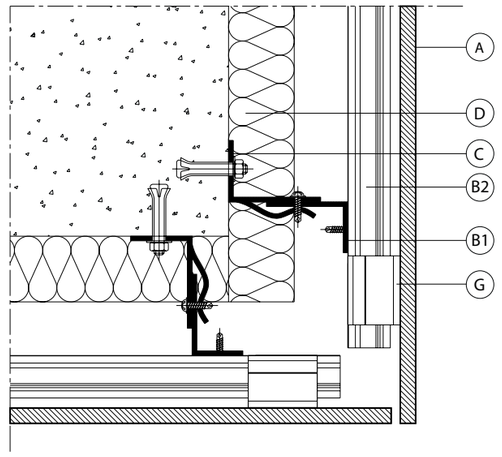




Hidden mounting with panel fixing bracket system



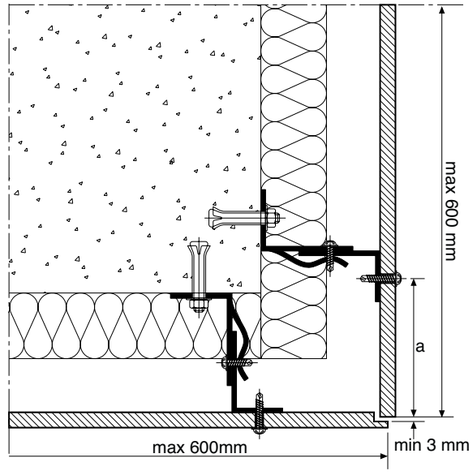




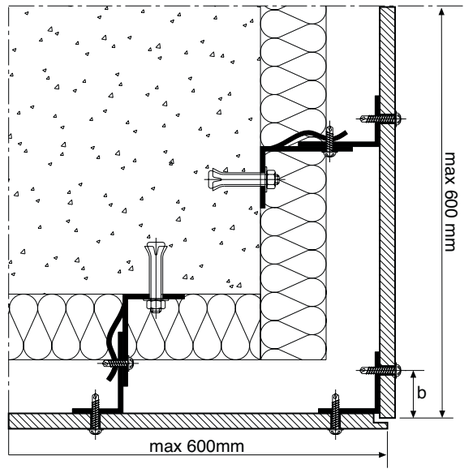
A. Parklex Facade
B1. Aluminum profile
B2. Horizontal carrier rail
C. Aluminum fixing bracket
D. Insulation
E. Screw
G. Panel fixing bracket

6.5. Types of corners

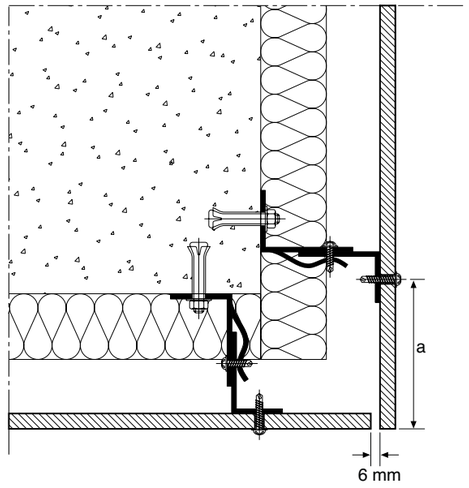
Pilaster edges



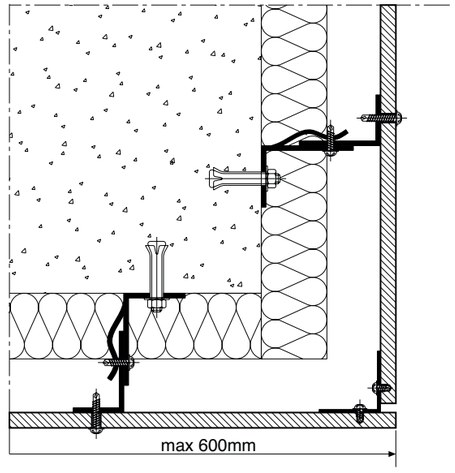
Pilaster edges with reinforced corners



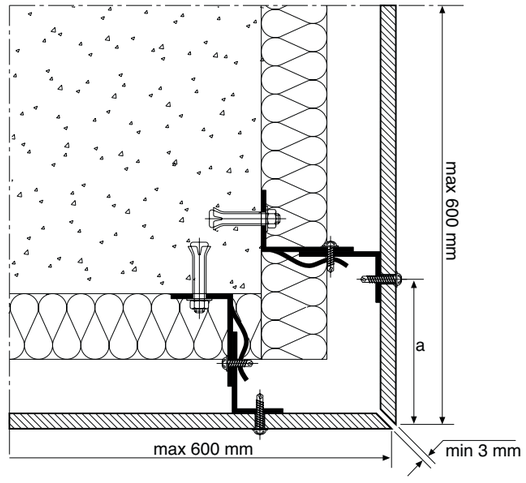
Overlapping edges



Overlapping edges with reinforced corners



Mitered corner



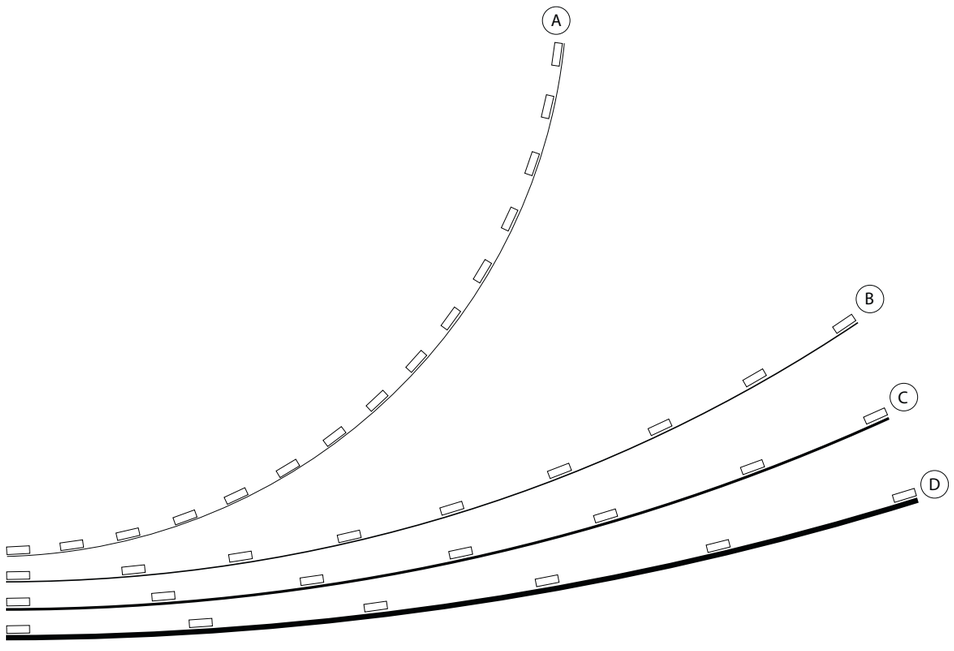
a max. 100 mm
b 20-40 mm

7. Curved panels

One of the advantages of Parklex Facade is that its panels may be curved to obtain different sophisticated looks. Even though the panels are supplied in the form of flat sheets, it is possible to curve them to a variety of radii, depending on their thickness.

Parklex Facade panels are manufactured to be flat and rigid; however, they may be fixed to achieve certain curvature radii.

The curvature radius will depend on the thickness of the material. The thinner the material, the tighter the curves, in other words, the smaller the radius.



Curvature radius	Thickness to use	Distance between carrier rails
< 1 m	May not be bent	
≥ 1 m	≤ 3 mm	≤ 150 mm
≥ 5 m	≤ 6 mm	≤ 300 mm
≥ 10 m	≤ 8 mm	≤ 400 mm
≥ 20 m	≤ 10 mm	≤ 450 mm

As seen in the table, when installing the panels on a curved structure, the distance between vertical profiles must be reduced. The distance between the fixing point to the edge must also be decreased. This distance must be between 15 and 25mm.

3 and 6-mm-thick panels may not be used, except in exceptional circumstances. Contact Parklex Technical Department for advice.

This table is valid only for curving in the grain direction, and for standard 2.44 x 1.22mm panels.

Panels may only be curved in the grain direction and only an exposed mechanical system using screws or rivets may be used for installation.

A. 3mm thick: radius from 1m to 5m.
B. 6mm thick: radius from 5m to 10m.
C. 8mm thick: radius from 10m to 20m.
D. 10mm thick: radius ≥ 20m

8. Cleaning and maintenance

8.1. Cleaning

During installation

The protective film applied at the factory must be removed from the surface of the panel immediately after installation to the façade.

The non-stick composition of the surface of Parklex Facade panels will allow most stains to be removed easily, with water and mild household detergents.

If necessary, a universal solvent (such as naphtha or White Spirit) may be used to remove difficult stains, however the surface must then be cleaned with a NON-ABRASIVE household detergent and water, scrubbing gently.

It is recommended to always test clean a small part of the affected area, and once the effectiveness of the procedure has been verified, proceed with the rest of the surface.

Recommendations for treating some of the most common stains that occur on a construction site include:

• Cement stains: If the cement is still wet, it may be cleaned off with water. If the cement has begun to set, wait for it to dry completely and then remove it with a cloth. It is important NOT TO SCRATCH the surface. Dry stains come off easily, without the need for scraping. Finally, clean with plenty of clear water.

• Oil stains: Use warm water and a non-abrasive household detergent. Solvents are generally unnecessary.

• Remains of adhesives: These may be removed using a universal solvent or alcohol. Always clean afterwards with soapy water.

• Paint or primer: Consult the manufacturer's instructions. Always consider a final cleaning with soapy water.

• Dents and scratches: There is no repair method for scratched or dented panels.

Important Note

Solvents and chemical cleaning products must be used following appropriate health and hygiene regulations at all times.

Periodic cleaning

The surface of Parklex Facade panels repels dirt; however, over time, it may be necessary to clean their surface so that the panels recover their initial appearance and aesthetic qualities.

General recommendations for cleaning:

• Always use NON-ABRASIVE mild household detergents, dissolved in water.

• Use soft, clean cloths or sponges that will not damage the surface.

• Always rinse with clean water to prevent the appearance of spots. Drying is not necessary.

• Never use steel wool or Scotch Brite-type scouring pads, which will scratch the surface.

• Never use abrasive cleaning powders or pastes, which will scratch the surface.

8.2. Maintenance

Cleaning graffiti

The specially treated non-stick surface of Parklex Facade will prevent aerosol paints from permanently adhering to the surface of the panel.. However, removal may require products specifically designed for removing this type of paint. A final cleaning with soapy water and a full rinse with clean water are recommended.

We have specific Resistance to Graffiti tests available for stains made with the following materials:

• Permanent blue marker.

• Red spray paint.

• Black paint.

• Water-based black marker.

If you would like to see the results of these tests, please request them from the Parklex sales network.

Simple cleaning of Parklex Facade panels is the only maintenance needed. The surface does not require any specific preventative treatment designed for wood.

Repair

There is currently no prescribed method for repairing Parklex Facade panels. In case of severe damage, affected panels must be replaced with new.

Parklex®

Parklex® Facade

Parklex® 700

Parklex® 500

Parklex® 2000

Parklex® 3000

EN/v01/1003

ER-0370/2003

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