

PARKLEX 1000 - INSTALLATION GUIDELINES

General Installation Guidelines and recommended fastening products are outlined in the sections below. Please keep in mind that the information contained on this website is intended to provide information and general guidelines only. Finland Color Plywood Corporation has no control over the quality of workmanship, the conditions under which the panel products are used, nor the suitability of such product testing for the purchaser's particular purposes; it cannot accept responsibility for the panel performance or designs as actually constructed. It is the responsibility of the individual architect, owner and installer to have all construction and installation methods engineered to meet relevant codes. It is the responsibility of the individual architect, owner and installer to insure that products selected for use on projects comply with all applicable building codes, safety codes and laws.

Parklex 1000 is intended to be installed as a rainscreen system. Installation guidelines and information contained in this website are based upon the principles of rainscreen installation, requiring a continuous ventilated airspace behind the exterior panel system and allowing for expansion between the panels.

1. STORAGE AND HANDLING

1.1 Transport and Storage

Materials must be transported and stored flat (in horizontal position). Materials must be handled with care and kept dry and protected from the elements (rain, humidity and direct sun) during transport and storage.

1.2 Storage

Materials must be stored in either an enclosed warehouse/storage facility, or kept completely covered to protect the panels from exposure to natural elements, weather and from coming into contact with standing water while being stored. If materials cannot be stored indoors, a system of tarping should be in place to insure that water sheds off the stored materials to prevent the panels from warping or bending. The panels should be kept in their original crating with the crate(s) protected by a plastic tarp. If the panels have been de-crated, a pallet or similar platform should be placed underneath the bottom panel to elevate them from the ground plane and another pallet should be placed over the top panel creating a separation between the panel surface and the tarp which could collect water.

2. PANEL PREPARATION

2.1 Cutting the Panels

Panels may be cut with a circular saw; a precision carbide or tungsten tipped blade is recommended.

2.2 Edge Protector

The R&D Department for the Parklex 1000 material have developed an improved panel (Fall 2005 production). This improvement has focused on the impregnation of the veneers with a higher amount of phenolic resin. The result of this development has yielded improved behavior against humidity. This new production of panels will no longer require the application of edge sealant.

2.3 Protective Film

The panels leave the factory with a protective layer of film on the front face to protect the panel surface from scratching during transport and handling. **It is necessary to remove this protective film prior to installation.**

2.4 Cleaning Prior to Installation

Once the protective film has been removed, superficial environmental dust will naturally wash away in the rain. However, care must be taken to prevent the panels from being soiled by damp cement, mortar or drops of paint. If these stains are not immediately cleaned, irreversible discoloration may occur on the panel surface. The panels should be cleaned as required at the location of the stain only, without attempting to scrub the entire surface. After the stain is removed, proceed to wash and dry the entire surface of the panel prior to installation (see section 11.1 for information on general cleaning of the panels).

3. INSTALLATION REQUIREMENTS

3.1 Ventilated Facades

Continuous (unobstructed) ventilation is required for all ventilated rainscreen facades. Provide continuous venting with vertical battens from bottom through the top of the panel system and around all fenestrations, doors and windows to allow air circulation and prevent accumulation of water or damp condensation behind the panels .

3.2 Ventilation Air Space

Provide a 1" minimum air space between back-up system and panels (see figures 1, 2 and 3). If using a metal support structure a 1" (26mm) minimum air space should be maintained between the back-up system and the panels. If using a wood support structure it is allowable to use 1x wood furring, with a nominal dimension of 1" (3/4" actual

dimension), providing a minimum 3/4" (19mm) air space.

Figure 1
Ventilated air space

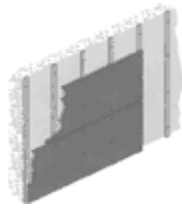


Fig. 1

Figure 2
Ventilation detail
(Parapet)

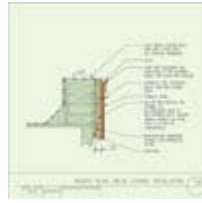


Fig. 2

Figure 3
Ventilation detail
(Base)

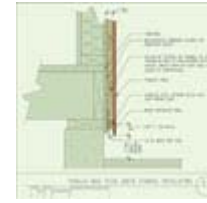


Fig. 3

3.3 Expansion Joint

Provide an expansion joint between the panels to accommodate expansion and contraction of the material. **Allow a minimum 3/8" (10mm) expansion gap at all joints** including areas around all windows and doors (see figures 4 and 5; click on links below for additional details).

Figure 4
Expansion joint
(Wood subframe)

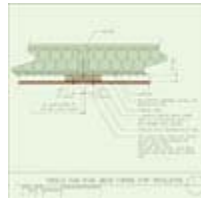


Fig. 4

Figure 5
Expansion joint
(Metal subframe)

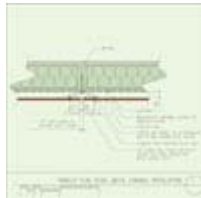


Fig. 5

[Window/door flush detail \(wood subframe\)](#)

[Window/door flush detail \(metal subframe\)](#)

[Window/door recessed detail \(wood subframe\)](#)

[Window/door recessed detail \(metal subframe\)](#)

[Window/door floating detail \(wood subframe\)](#)

[Window/door floating detail \(metal subframe\)](#)

3.4 Weatherproofing

Parklex 1000 is highly resistant to varying climatic conditions and extreme weather, however it is not intended to replace the integral weatherproofing system of the building. It is the responsibility of the individual architect, owner and installer to provide an adequate and appropriate weatherproofing system to protect the building envelope.

3.5 Recent Work

Panels must not be installed over recent work that is not completely cured and dry.

4. FASTENING THE PANELS

4.1 Panel Weight

An 8mm (5/16") x 1220mm (48") x 2440mm (96") Parklex 1000 panel weighs approximately 75 pounds (2.23 lb/ft²).

A 10mm (3/8") x 1220mm (48") x 2440mm (96") Parklex 1000 panel weighs approximately 90 pounds (2.8 lb/ft²).

4.2 Panel Support System

Panel support structure shall be oriented vertically and designed to allow for continuous ventilation behind the panels. There must be **a minimum of three vertical supports per panel** (regardless of finished panel module size) to prevent bowing or deflection at the center of the panel. See sections 3.1 and 3.2 for information on ventilation air space behind panels. Refer to the architectural drawings for exact placement of the panel supports and fasteners.

4.3 Spacing of Fasteners

Fasteners shall be spaced at intervals not to exceed 19-3/4" (500mm) on center for 8mm panels; 24" (600mm) on center for 10mm panels. See section 4.3.1 for Panel Fastener Layout Diagrams.

4.3.1 Panel Fastener Layout

Click on links below for corresponding layout diagrams

[8mm horizontal layout](#)

[8mm vertical layout](#)

[10mm horizontal layout](#)

[10mm vertical layout](#)

4.4 Alignment of Panel Supports

Panel supports shall be shimmed as required to provide an even and consistent surface for proper fastening of the panels.

4.5 Attach Panel at Center

To control material movement (bowing and buckling at center of panel) during expansion and contraction, panel must be attached at its center with mechanical fasteners or expansive adhesive (see sections 9.1 - 9.4 for adhesive specifications and information). Follow additional guidelines in sections 4.2, 4.3 and 4.3.1 regarding Panel Supports, Spacing of Fasteners and Panel Fastener Layout.

5. MECHANICAL FASTENERS

5.1 Pre-Drill to Accommodate Expansion and Contraction

A clearance hole 1.5 - 2mm larger than the size of the screw must be pre-drilled into the panel to allow for panel movement (see figure 6). Please note that even if using self-drilling screws, pre-drilling the panel is recommended to prevent damage to the panel and/or dulling of the fastener's blade, which could prevent it from drilling through the panel supports.

Figure 6
Pre-drill clearance hole
for mechanical fastener

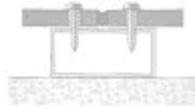


Fig. 6

5.2 Expansion and Contraction

To allow the panels to expand freely, care should be taken not to overdrive the fasteners. Fastener heads should fit snugly against the panels, while being careful not to overtighten; drive fasteners perpendicular to panels.

5.3 Clearance Margin at Panel Edge

Mechanical fasteners shall be kept 5/8" - 1" (15-25mm) from the corner edge of the panel (see section 4.3.1 for Panel Fastener Layout diagrams).

5.4 Special Conditions

For special installation conditions (such as curved applications or custom joint detailing), please refer to our [Frequently Asked Questions](#).

6. MECHANICAL FASTENER SPECIFICATIONS

6.1 Fastener Specifications

Fasteners must be manufactured of austenitic stainless steel to provide optimum corrosion resistance (see Fastener Performance Specifications, section 7.3 for wood and section 8.3 for metal support structures). The use of staples, nails and tapered countersinking (drywall) type screws are not recommended for fastening the panels.

7. FASTENING INTO WOOD SUPPORT STRUCTURE

7.1 Fastening into Wood

Recommended Fastener Product, Parklex 1000 panel to wood support structure:

[SFS Intec TW-S-D12-4.8 x 38 \(torx drive\) or TW-S-D12-4.8 x 60 \(torx drive\)](#).

(Alternate: SCFW-S-D10 self-drilling fastener, torx drive)

7.2 Fastener Finishes

Fasteners are available in Stainless or color-matched to panel color. Contact Finland Color Plywood for additional information.

7.3 Fastener Performance Specification

Parklex 1000 panel to wood support structure:

Fasteners to be manufactured from Grade 304 austenitic stainless steel; 0.189" (4.8mm) minimum diameter with a

.472" (12mm) diameter truss head and Torx 20 drive recess. The fastener's head, shank and all fastener threads shall be Grade 304 austenitic stainless steel to provide total corrosion resistance and optimum structural performance.

8. FASTENING INTO METAL SUPPORT STRUCTURE

8.1 Fastening into Metal

Recommended Fastener Product, Parklex 1000 panel to metal support structure:

[SFS Intec SX3 / SX6 \(torx drive\) or SX3 / SX6 \(irius drive\).](#)

8.2 Fastener Finishes

Fasteners are available in Stainless or color-matched to panel color. Contact Finland Color Plywood for additional information.

8.3 Fastener Performance Specification

Parklex 1000 panel to metal support structure:

Fasteners to be manufactured from Grade 304 austenitic stainless steel; self-drilling with an inserted drill blade based on the bi-met principle. Fasteners to be 0.216" (5.5mm) minimum diameter with a 1/2" (12mm) diameter modified truss head and tapered Torx 25 drive recess or irius drive system. The fastener's head, shank and all fastener threads shall be Grade 304 austenitic stainless steel to provide total corrosion resistance and optimum structural performance.

9. ADHESIVES

9.1 Fastening with Adhesives

It is recommended to attach panels using mechanical fasteners for ease of installation. The strength of the adhesives specified will make the attachment of the panels virtually permanent (removal may cause permanent damage to the panel). For aesthetic reasons, adhesives may be used in conjunction with mechanical fasteners around the perimeter of the panel or limited mechanical fasteners at the corners. Follow guidelines specified below.

9.2 Attach Panel at Center

The panel must be attached at its center to prevent curvature (see section 4.5). Adhesives accommodate expansion and contraction without penetrating the surface of the panel.

9.3 Preparation of Panel

SAND DOWN the panel in the area to be glued and remove dust.

9.4 Use of Adhesives

Specific preparation and installation techniques must be followed for successful attachment using adhesive. Click on the link below for detailed installation instructions for use of Sika Adhesives to adhere Parklex 1000 panels.

[SIKA Guide for Bonding Parklex 1000 Panels with Adhesives](#)

9.5 Fastening with Adhesive

Recommended Adhesive Product:

[SikaFlex-252](#) Elastic Adhesive or **[SikaFlex-552](#)** Elastic Adhesive

Visit the Sika Corporation website **www.sikaindustry.com** to download technical data and detailed product information.

[PanelTack for bonding Parklex 1000](#)

9.6 Adhesive Performance Specification

Polyurethane expansive structural adhesive with permanent elasticity to allow continuous expansive/contractive movement of the panels. Adhesive shall have high tensile and shear strength with extremely high thixotropy (gap filling properties) and excellent weather and water resistance.

10. JOINTS BETWEEN PANELS

10.1 Expansion Joints Between Panels

Joints between panels may be left open or may be sealed with expansive joint sealant (see section 3.3 for information on expansion joints). If using joint sealant, allow a minimum 3/8" (10mm) expansion gap at all joints including areas around all windows and doors.

10.2 Sealing Joints Between Panels

Joints between panels may be sealed with an expansive joint sealant to protect the underlying substructure from moisture absorption or to prevent any waste from gathering in the joints. Silicon is not recommended as an expansive joint sealant.

10.3 Joint Sealant

Recommended Joint Sealant product:

[SikaFlex-295UV](#) Resistant Sealant, [SikaFlex-521UV](#) Resistant Sealant or [SikaFlex-221](#) Elastic Sealant.

Visit the Sika Corporation website www.sikaindustry.com to download technical data and information.

10.4 Joint Sealant Performance Specification

Polyurethane expansive joint sealant with permanent elasticity to allow continuous movement and flexibility. Sealant shall have extremely high thixotropy (gap filling properties) and excellent weather and water resistance.

11. MAINTENANCE

11.1 Cleaning

Parklex 1000 panels are prefinished, however periodic maintenance may be necessary to clean the panel surface of superficial dirt resulting from typical exposure to dust and pollution. Cleaning should be done using a damp soft cloth and non-abrasive mild household detergent solution. Abrasive and highly acidic or alkaline products should not be used as they could scratch or damage the surface of the panel.

Disclaimer:

Finland Color Plywood Corporation (FCPC) makes no representation or guarantee as to the suitability of the Product for the buyer's purposes, and any warranty is limited to the express Warranty offered with the Product. FCPC has no control over the quality of design of the structure to which the product is attached, the quality of installation, or the condition under which the product is used. The information provided by FCPC is intended to provide general information and guidelines only, and FCPC cannot accept liability for loss or damage arising from the use of the information supplied. It is the responsibility of the buyer to have all construction and installation methods engineered to meet relevant codes. In line with its policy to continually improve its products, FCPC reserves the right to change material and specifications without notice. The Products sold by FCPC are natural wood, and therefore there may be minor natural variations in color, grain and tone, as well as minor blemishes from the manufacturing process, and the Product supplied may not precisely match the samples.

Click to view [Factory Warning Label](#) included with material shipment.

See [Parklex 1000 Specifications](#) for Technical Data and Product Testing Results.

See [Parklex 1000 Sample Details](#) for General Details into Wood and Metal Subframe Support Systems.

See [Parklex 1000 FAQs](#) for Answers to Frequently Asked Questions.