# NATURAL WOOD BEAUTY EXTERIORS







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Liberty Place, Sydney 2014 WAF Winner - Office category



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Prodema in the world

Prodema Representatives



# **I** NATURAL WOOD BRINGS YOUR PROJECTS TO LIFE





Natural wood enhances the look of any building with its unique style, beauty and elegance.

conforms to the most innovative designs in facade coverings.

We have a deep respect for nature and quality of life.

Our natural wood performs impressively and





#### THE ELEGANCE OF NATURAL WOOD

Our objective is to provide the world of architecture with unique materials that help architects design warm, beautiful, comfortable spaces that improve the quality of life for all.

Energy efficient buildings with the elegance of natural wood.





# **2** BOUNDLESS CREATIVITY







**PRODEX** pushes the envelope in facade design as architects partner with **Prodema** to create innovative designs never thought possible. A product that allows your vision become reality by offering versatility, warmth, elegance, and remarkable performance.

Here at **Prodema** we work hard to be a source of inspiration for architects. This partnership has translated into prestigious architectural design awards, globally.

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# MAINTENANCE FREE NATURAL WOOD





#### THE CHARACTERISTICS OF NATURAL WOOD

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Each **PRODEX** panel is unique and each wood grain is special, no two panels are alike. When sunlight reflects off the wood fibres the full beauty of natural wood can be observed and facades light up in a range of different tones.

30

# 4 COMMITTED TO NATURE

![](_page_15_Picture_1.jpeg)

![](_page_16_Picture_0.jpeg)

![](_page_16_Picture_1.jpeg)

At **Prodema** quality design and innovation are of upmost important to us. However, our respect for nature is even more important: being both our source of material and our inspiration. At **Prodema** we work to promote sustainable construction by maximizing wellbeing with environmental efficiency in building projects.

Using **Prodema** also provides **points in green building certification schemes such as LEED** (Leadership in Energy and Environmental Design) or **BREEAM** (Building Research Establishment Environmental Assesment Methodology).

**Prodema** also boasts **PEFC** certification, the guarantee that our products have been manufactured with raw forest materials managed in a socially and environmentally responsible way.

# **5 PRODEX THE PERFECT SKIN FOR VENTILATED FACADES**

![](_page_18_Picture_0.jpeg)

![](_page_19_Picture_0.jpeg)

# **MOUNTING SYSTEMS**

#### **Concealed:**

The concealed fixing system is available for both walls and ceilings. The attachment system hides behind the panel for those projects requiring an aesthetically smooth facade, free of hardware.

#### **Exposed:**

This is the most common mounting system employed with **PRODEX** panels: simple, strong and more cost-effective than other systems.

![](_page_21_Picture_0.jpeg)

#### SUSPENDED CEILING: CONCEALED FIXINGS

#### Surry Hills library, Sydney

National Architecture Awards 2011. Global Design Award 2011. National Award for Sustainable Architecture and National Award for Public Architecture at the National Architecture Awards.

## LOUVERS

Louvers are the perfect complement to a ventilated facade, they are designed to cover glass spaces and other surfaces and make it possible to control sunlight as well as energy consumption within a building.

## **CLAPBOARD FACADE**

This mounting system transforms your facade into traditional clapboard siding with all the benefits of a ventilated facade.

![](_page_23_Picture_2.jpeg)

## **CURVED FACADES**

There are various ways of cladding curved facades with **PRODEX** panels. The various solutions are detailed in the technical catalogue.

![](_page_24_Picture_2.jpeg)

# 6 PRODEX COLORS

![](_page_25_Picture_1.jpeg)

![](_page_26_Picture_0.jpeg)

# Dark Brown

![](_page_27_Picture_1.jpeg)

![](_page_27_Picture_2.jpeg)

![](_page_27_Picture_3.jpeg)

# Deep Brown

![](_page_27_Picture_6.jpeg)

# Light Brown

![](_page_28_Picture_2.jpeg)

![](_page_29_Picture_0.jpeg)

![](_page_30_Picture_0.jpeg)

#### IN THE PRODEX TECHNICAL CATALOGUE ALL THE TECHNICAL SPECIFICATIONS AND POSSIBLE USES FOR THE PRODUCT CAN BE FOUND

#### PANEL COMPOSITION:

PRODEX panels have a bakelite core covered with a natural wood veneer that is specially treated to ensure maximum resistance.

We have developed an exterior PVDF film with non-stick qualities in order to achieve a maximum level of care for the wood, ensuring panels are protected from moisture, rain, sunlight, and even the build-up of dirt on the panels' surface.

#### MAINTENANCE-FREE:

PRODEX natural wood panels do not need the regular maintenance other woods for exterior require.

#### AESTHETIC:

PRODEX panels offer the design world the possibility to create natural, living facades with a wide range of tones and creative options available.

#### RESISTANCE AND DURABILITY:

PRODEX panels are the perfect material for cladding facades thanks to the panel's technical qualities. The panel's bakelite core means it is possible to adjust the panel's thickness and its subsequent technical qualities making PRODEX the ideal solution for all types of projects.

PRODEX panels are extremely hard, rendering them perfectly resistant to continuous exposure to sunlight and sharp changes in temperature and humidity.

They also offer a high level of durability against termite attacks and maximum resistance to vandalism.

PRODEX panels also offer excellent dimensional stability.

#### CLEANING:

The PVDF surface prevents dust and all kinds of dirt from sticking to the panel surface, ensuring ease of maintenance and cleaning.

#### ANTI-GRAFFITI RESISTENCE:

The outer chemical non-stick layer impregnated into **PRODEX** panels prevents aerosol paint from sticking permanently to the surface.

#### PANEL DIMENSIONS:

Length x width: 2.440 mm x 1.220 mm. Thicknesses 6, 8, 10, 12, 14, 16, 18, 20, 22 mm.

#### FIRE RATING:

On request, panels may be supplied with different reactions to fire in line with standard EN 13.501-1:

- **♥ PRODEX** C s1, d0
- ▼ **PRODEX:** Class B for North America
- Y PRODEX IGN B s1, d0
- ✓ PRODEX IGN: Class A for North America

![](_page_31_Picture_27.jpeg)

Dark Brown

![](_page_31_Picture_29.jpeg)

Pale

![](_page_31_Picture_31.jpeg)

![](_page_31_Figure_32.jpeg)

#### OKUME VENEER

![](_page_31_Picture_34.jpeg)

**Deep Brown** 

![](_page_31_Picture_36.jpeg)

![](_page_31_Picture_40.jpeg)

Light Brown

![](_page_31_Picture_42.jpeg)

Cream

![](_page_31_Picture_44.jpeg)

Mint

![](_page_31_Picture_47.jpeg)

Rustik

![](_page_31_Picture_49.jpeg)

![](_page_32_Picture_0.jpeg)

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# TECHNICAL CATALOG EXTERIORS

### CONCEALED SLAT SYSTEM

![](_page_33_Picture_2.jpeg)

![](_page_33_Picture_3.jpeg)

![](_page_34_Picture_0.jpeg)

#### EDITION Nº 3

SPECIFIC Catalog FOR

It is necessary to follow all of the instructions contained within this technical catalog to ensure the successful installation of **PRODEX** panels and maintain a valid warranty.

For technical queries, alternative installation systems, etc., we recommend contacting Prodema USA, Inc. (prodemausa@prodema.com)

The updated version of this catalog can be found on the **Prodema** website.

![](_page_34_Picture_6.jpeg)

![](_page_34_Picture_7.jpeg)

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![](_page_35_Picture_12.jpeg)

# **O** PRIOR TO INSTALLATION **OF THE PRODUCT**

**RECEIPT OF MATERIAL** 

Verify condition of package:

- In the case of visible damage, leave details on the transporter's delivery note.
- In the case of hidden damage, notify within 72 hours.

No claims will be accepted for transport damage if any of these instructions are not followed.

![](_page_36_Picture_6.jpeg)

#### HANDLING AND STORAGE

· PRODEX panels must be stored in a closed and climate controlled area, at an ambient temperature of 50°-70° F (10°-25° C) and with an air humidity of 30-70%.

• It is recommended to store **PRODEX** panels in their original packaging until the time of installation. In the case of having to repackage any panel, this should be done under the same conditions as the original packaging.

 Once the packaging has been opened, it is recommended to remove only those PRODEX panels that will be installed immediately. The remaining panels must then be stored under the same conditions in the original packaging.

· PRODEX panels cannot be stored vertically, only in a horizontal position on a pallet with supports < 31 1/2" (800mm) in distance. Improper storage can result in warping of panels.

• The floor supporting the pallet must be free of material and debris that may affect the stability of the pallet.

![](_page_36_Picture_13.jpeg)

• During transport, **PRODEX** panels must be properly secured as they easily slide when stacked, resulting in damage. They must always be placed horizontally on a flat surface.

![](_page_36_Figure_15.jpeg)

· It is recommended to avoid exposure of both sides of the **PRODEX** panel to different humidity and temperature conditions. When

**PRODEX** panels have been fitted with fastening elements (such as clips for a concealed installation). they must be stored face to face; back to back, using wood or plastic supports placed between panels at a maximum distance of 23 5/8" (600mm).

These instructions also apply to cut panels.

![](_page_36_Picture_19.jpeg)

#### **RANDOM POSITIONING OF PANELS**

PRODEX panels are manufactured with natural wood and therefore will exhibit variations in tone. Prior to fabrication and installation, it is recommended to mix panels to achieve an even distribution of tones throughout the facade. The steps to follow are detailed below:

1. Number all the pallets 1, 2, 3, etc. The pallets must be stored throughout the fabrication / installation process in accordance with the requirements described in section 2.2.

2. Open pallet No. 1 and remove two panels - Place these two panels on a flat pallet, with a maximum distance of 31 1/2" (800mm) between supports.

3. Turn over the third panel from pallet No. 1 without removing it from the pallet.

4. Close pallet No. 1 and store it respecting the packaging conditions in section 2.2.

5. Repeat the same process with the other pallets, selecting them in a random order until 10 to 20 panels have been removed. For example, if there are 20 pallets, remove panels from numbers 1, 8, 13, 15 and 20. or other random order.

6. Mix the 10 to 20 panels that have been removed and install them within 2 to 3 hours from the time the first panel was removed.

7. Repeat the first six steps until all the panels have been installed.

#### PANEL MODULE SIZE

Depending on the module size selected for the façade, the aesthetic result in the majority of cases summarized as the following two options:

A. Installation of slats.

B. Installation of full size panels or large modules.

![](_page_36_Figure_33.jpeg)

Natural wood will always show variations in tone from panel to panel. This variation of color between panels is more obvious when installing large size panels (photo on right). However, the difference in color will be minimized when smaller size panels are used (photo on left). This is most notable only in the Rustik and Pale colors. If you wish to see less color variance, a control sample must be sent with material order. We will then do our best to produce panels that are more homogeneous in color, although there will always be variations.

![](_page_36_Picture_39.jpeg)

#### FABRICATION

![](_page_37_Picture_1.jpeg)

(1.4)

1.4.1 CUTTING RECOMMENDATIONS

Panels need to be squared before cutting begins.

Cuts made to the exterior panels must be performed using tools with a material hardness of K - 05 and K - 01 (Tungsten carbide / Widia), be well sharpened and avoid overheating at all times.

#### A. SAW

#### Types of Saw and Blades:

Circular saw blades for wood made from hard material (Widia tip) or blades designed for HPL (high pressure laminate) panels.

Parameters for saw blades according to tool type:

	BLADE DIAMETER	TEETH (z)	SPEED (rpm)	BLADE THICKNESS	TYPES OF TOOTH
Static	12"	80	4000-6000	1/8"	Flat, trapeze,
circular saw	10"	80	4000-6000	1/8"	alternate and all their
Manual circular saw	17.5"	30	3000-3500	3/32"	combinations

#### Positioning the Panel

The saw blade must always begin cutting on the front side (face) of the panel.

- Table saw: the front face of the panel must be face up.
- Manual saw: the front face of the panel must be face down.

#### Height of Cutting Blade:

In order to obtain a clean cut, we recommend the height of blade to be 1-2cm above the panel face.

![](_page_37_Picture_16.jpeg)

After Cutting:

8

After fabrication (cutting, drilling, sanding of edges, if required), no other treatment for finishing or protection is required. Rough edges may be smoothed out with sand paper.

#### B. CNC

The **PRODEX** panel can be fabricated with computerized numeric control (CNC) machines. Ensure that bits are always well sharpened.

#### Recommended Speeds:

- Cutting speed: 16,000 rpm.
- · Feed speed: 4m/min.

It is very important to avoid overheating of the equipment. The above recommended speeds must be monitored throughout the fabrication process to ensure optimal results.

#### C. ALTERNATIVE SYSTEMS

Apart from the already mentioned systems, there are other fabrication options. Not all of them are compatible with the material.

• Waterjet Cutting: this system is compatible with the PRODEX panels, however, it is advisable to carry out a test beforehand to adjust the parameters.

• Laser Cutting: this system is not recommended for use on PRODEX panels as they blacken and burn the wood veneer.

![](_page_37_Picture_29.jpeg)

The **PRODEX** panels are drilled using hard metal drill bits or steel bits with tungsten carbide tips (Widia) with a cutting angle greater than 100°. Bits for perforating metal may also be used.

In order to avoid any splintering of the material to be drilled, it is best to use a support plate under the panel to obtain a clean hole (see figure 1). If a support plate is not used, the finished face of the panel will face up (see figure 2).

![](_page_37_Picture_32.jpeg)

**PRODEX** PANEL FINISHED FACE SUPPORT PANEL

![](_page_37_Picture_34.jpeg)

- Drilling Speed Recommendations:
- Cutting Speed: 16,000 rpm.
- Feed Speed: 4m/min.

![](_page_37_Picture_40.jpeg)

FIGURE 2

#### 1.4.3 PERFORATION RECOMMENDATIONS

There are a series of limitations and requirements to consider when fabricating **PRODEX** panels for use on exteriors.

It is important to note that every perforation increases the percentage of exposed edges to UV and moisture conditions. This makes the panel more vulnerable, so we recommend the following parameters to ensure the panel's stability.

- 1. The fabrication must be performed by a professional using the appropriate tools.
- 2. If the percentage of the perforation pattern is > 20%, contact **Prodema** for recommendations.
- 3. All types of perforation patterns will require a solid 3" (75 mm) border along the perimeter of the panel.
- 4. The distance between perforations must never be less than 3" (75 mm).
- 5. If the fabrication consists of perforations, the maximum diameter of each may not be greater than 5 7/8" (150 mm).
- 6. The maximum panel openess must not exceed 30%.

When the panel requires custom fabrication as herein described, the consent of the **Prodema** technical department must be obtained.

![](_page_38_Picture_10.jpeg)

#### Cracks Due to Stress

If the panel needs to be perforated for aesthetic or functional reasons (ventilation outlets, installation of signage, lighting, etc.) it is very important to follow the recommendations below to avoid cracking of the panel due to excessive stresses.

#### OPENINGS, GROOVES, ETC .:

If you need to cut openings, grooves, etc., it is very important to avoid leaving sharp edges. The corners on openings should be softened by cutting the largest possible radius, a minimum of 5mm.

![](_page_38_Picture_15.jpeg)

#### GROOVES ON THE EDGE:

It is likely that on some occasions, and always with the approval of the **Prodema** Technical Department, machining will be required to add a groove on the edge of the **PRODEX** panels (for a Clapboard facade installation for example). In these cases, it is also very important to avoid sharp edges and attempt to maximize their size, with the recommended minimum being 1/16" (1mm).

![](_page_38_Picture_18.jpeg)

![](_page_38_Picture_20.jpeg)

![](_page_38_Picture_21.jpeg)

# **2** INSTALLATION **OF THE PRODUCT**

**GENERAL CONCEPTS** 

2.1

2.1.1 VENTILATED FAÇADES

Did you know that... the use of a ventilated façade is essential for the assembly of PRODEX panels?

To ensure the good performance of this type of panel, it is very important that the differences in humidity and temperature between both faces are minimal. The ventilated facade has several advantages over a conventional façade:

#### Watertight to rain

The ventilated façade provides better water-tightness in the rain and stops the water from penetrating into the air chamber.

- It offers a good diffusion of water vapor from within the building to the exterior.
- The ventilated façade generates a constant ventilation of air and prevents there being any stagnation of humidity or the insulation from becoming damp.
- Reduces thermal bridges to a minimum.

#### Improved acoustic insulation

#### Thermal insulation

Generates an energy saving of up to 50%\* by absorbing less heat in summer and dispersing less heat in winter.

· Easy assembly and disassembly and a good solution for rehabilitations.

![](_page_39_Picture_14.jpeg)

Interior insulation of the building in the event of exterior changes of temperature

Solar radiation reflected to the exterior

Low transmission of temperature into the interior of the building

In the summer, or during hot spells, the sun shines on the PRODEX panels instead of on the building. This solar radiation heats the air in the air chamber generating a "chimney" effect due to the change in its density. This generated ventilation avoids the accumulation of heat on the façade, which together with the thermal insulation are the perfect combination to protect the building for atmospheric agents

In winter, or during cold spells, the ventilated facade acts as a heat accumulator, given that the air chamber assists in the thermal stability of the system. This ventilated facade construction system together with the thermal insulation prevents the loss of heat of the building.

- The air flow cavity behind the panel must be a minimum of 1" (25mm).
- window openings. This is critical to ensure required air flow .

• The subframing used to create the air flow cavity must be installed in a vertical direction. If conditions require horizontal channels, the percentage of openess is directly related to the channel depth. Perforations must allow 3/4" (20mm) minimum air flow.

EXAMPLES:

![](_page_39_Picture_25.jpeg)

![](_page_39_Picture_26.jpeg)

![](_page_39_Picture_27.jpeg)

\* Depending on which direction the building faces, the insulation used and the numbers of doors, windows, etc.

Did you know that... a ventilated facade requires unobstructed, continuous air flow for proper performance?

• Leave a minimum opening of 3/4" (20mm) at the top and bottom part of the façade, as well as at door and

![](_page_40_Picture_0.jpeg)

A 1/4" - 5/16" (6 - 8mm) expansion joint between panels is required. The joint allows the **PRODEX** panels to expand and contract as the material reacts to fluctuating temperature and humidity conditions.

![](_page_40_Picture_2.jpeg)

![](_page_40_Figure_3.jpeg)

**PRODEX** is finished with a natural wood veneer and will experience dimensional changes due to temperature and humidity fluctuations. The maximum dimensional variation in a longitudinal direction is 0.30% and 0.60% in a transversal direction. These small dimensional variations do not affect either the aesthetics or the performance of the panels. Therefore it is very important to take into account the expansion joints indicated by **Prodema**.

![](_page_40_Figure_5.jpeg)

**PRODEX** is resistant to vapor, water, snow and ice. However, we do not recommend submerging panels permanently or for extended periods of time in any of these conditions as a darker color may appear along the edges of the panel surface.

![](_page_40_Picture_7.jpeg)

**PRODEX** panels require a ventilated air cavity for their proper performance. The subframe used to create this air cavity must be installed vertically and fastened to the substrate with fastening elements compatible with the materials used.

The subframing system must comply with local wind-load and building code requirements and must be protected against corrosion, regardless of the material or type of installation.

#### Metal Subframe

In rainy or humid areas it is advisable to use a galvanized steel or aluminum metal subframe. In coastal areas, we recommend using a stainless steel or anodized aluminium subframe.

#### CMU - Concrete Wall

![](_page_41_Picture_1.jpeg)

#### Stud - Wall

![](_page_41_Picture_3.jpeg)

#### Wood Subframe

This type of subframe requires treated wood. A PVC or closed cell polyethylene foam seal is required between the batten and backside of panel to act as a moisture barrier.

If needed, the generic bracket can be used to resolve irregularities in surface alignments.

![](_page_41_Picture_7.jpeg)

![](_page_41_Picture_8.jpeg)

#### EXPOSED FASTENING

 $\leq$  12" (305mm) for exposed.

Note: Ensure that the backside of the panel is supported by the widest surface area of subframe element.

![](_page_41_Picture_12.jpeg)

24"(610mm)

![](_page_41_Picture_14.jpeg)

INTERMEDIATE SUPPORT REQUIRED (only 2 rows of fasteners along edge of panel)

![](_page_41_Picture_16.jpeg)

![](_page_41_Picture_17.jpeg)

A minimum of 3 supports are required per the diagram, unless the panel width, vertical or horizontal, is

#### EXCEPTIONS

When the panel width falls within the specified dimensions (per diagram), only two support points are required.

4"-12"(102-305mm) 96"(2440mm)

#### CONCEALED FASTENING

A minimum of 3 supports are required per the diagram, unless the panel width, vertical or horizontal, is 16" (305mm) for concealed.

![](_page_42_Figure_5.jpeg)

![](_page_42_Figure_6.jpeg)

3 rows of hanging hook required

![](_page_42_Figure_8.jpeg)

3 rows of hanging hook required

![](_page_42_Picture_10.jpeg)

When the panel width falls within the specified dimensions (per diagram), only two hooks in that direction are required.

2.1.6 TONGUE AND GROOVE AND COUNTERSUNK SCREWS

Prodema does not allow installing tongue and groove panels for exterior façades. This system is fastened using countersunk screws that prevent the panels from moving, and furthermore, they are only screwed in around the perimeter of the female joint and not the male; which is insufficient for the proper functioning of the **PRODEX** panels according to our recommendations.

![](_page_42_Picture_14.jpeg)

TONGUE AND GROOVE SYSTEM

![](_page_42_Picture_17.jpeg)

![](_page_43_Picture_0.jpeg)

#### 2.2.1 PR-CF40: CONCEALED SLAT SYSTEM

This system is designed to quickly and easily install PRODEX panels using 5/16" (8mm) thick pre-fabricated slats, for concealed fastening using special clips.

# SUBSTRATE AIR CAVITY PRODEX PANEL WITH SLAT SYSTEM

#### INSTALLATION OF PRODEX SLATS

(300mm).

11 13/16" (300mm)

#### INSTALLATION OF THE SUBFRAME

This system can be installed over a vertical metal or wood subframe (Refer to section 3.1.4.).

For panels measuring 96" (2440 mm) long, the batten must be a minimum of 2" (51mm) wide. The horizontal distance between battens must be not exceed 24" (610mm). Each panel must be supported by a minimum of three vertical battens.

![](_page_43_Picture_10.jpeg)

![](_page_43_Figure_13.jpeg)

![](_page_43_Figure_14.jpeg)

• 7 13/19" (198mm) PRODEX SLATS PATTERN

![](_page_44_Picture_1.jpeg)

• 11 13/16" (300mm) PRODEX SLATS PATTERN

![](_page_44_Picture_3.jpeg)

1 To start, install the clips that will support the first row of slats. These aluminum clips are designed for use with our recommended DIN7504N M3.5 screws for aluminium battens or DIN7505B M3.5 for timber battens.

FOR ALUMINIUM BATTENS: DIN 7504 N (black zinc)

.15" (3.9mm)

The clips are fastened to the battens, starting at the bottom of the elevation. The clips hold the panels in place, therefore it is crucial to perfectly align them at the start of the installation.

![](_page_44_Picture_8.jpeg)

2 After the first row of clips are fixed, install the PRODEX slat. The slats are supplied with a base groove designed to perfectly fit over the clip.

As all ventilated façades, a minimum gap of 1" (25.4mm) is needed along the base of the façade to allow the rear of the PRODEX panels to be in equilibrium with face.

![](_page_44_Picture_11.jpeg)

![](_page_44_Figure_13.jpeg)

3 Install the next row of clips. It is ESSENTIAL to leave a 1 mm gap between these clips and the slat below, to allow the natural expansion and contraction movements of the panel. Please carefully study the images below.

As part of the system we supply gap measuring tools, which must be inserted whilst positioning the clips.

![](_page_45_Picture_2.jpeg)

![](_page_45_Figure_3.jpeg)

4 For fixing and controlling longitudinal expansion and contraction after the PRODEX slat is installed, drill a hole in the central point of the slat through the tongue and insert a nail for timber battens or a fxing screw with aluminium.

A 5/16" (8mm) expansion joint between slats is required. This joint allows the PRODEX slats to expand and contract as the material reacts to fluctuating temperature and humidity conditions. The joint is created using two clips fixed to one vertical batten, therefore no clips are visible at the joint. We recommend that the vertical batten is finished in black.

![](_page_45_Picture_7.jpeg)

5/16" (8mm)

![](_page_45_Picture_9.jpeg)

![](_page_45_Picture_10.jpeg)

This system leaves a closed joint between slats of 1/4" (6mm).

6 To finish, the top row of panels is fastened to each batten using standard colour-coded Prodema screws with a washer or spacer in order to assure the total planimetry of the façade.

Alternatively, the slats can be bonded to the substructure, ensuring the gap of 3/16" (4mm) created by the clip is maintained using a suitable elastic adhesive.

![](_page_45_Picture_14.jpeg)

![](_page_45_Picture_17.jpeg)

![](_page_46_Picture_0.jpeg)

**INSTALLATION DETAILS** 

2.3.1 CONCEALED SLAT SYSTEM

#### Base Detail

![](_page_46_Figure_4.jpeg)

#### Window Sill

![](_page_46_Figure_6.jpeg)

Inside Corner

![](_page_46_Figure_8.jpeg)

![](_page_46_Figure_9.jpeg)

![](_page_46_Figure_10.jpeg)

![](_page_46_Figure_11.jpeg)

![](_page_46_Figure_12.jpeg)

#### Vertical Joint

![](_page_46_Figure_14.jpeg)

# **B POST-INSTALLATION**

#### REMOVING THE PROTECTIVE SURFACE 3.1

The **PRODEX** panels are protected by a special film on the finished side. The protective film, applied at the factory must be removed from the panel surface as soon as the product has been installed. Never try to remove the film from the reverse side as this is not a protective film and is necessary for the stability of the panel.

Never leave an installed panel, or one exposed to the elements, with its protective film in place for more than 2–3 hours. This will prevent the film from leaving residue on the panel surface and avoid having to remove it using special products. It will also prevent the panel from warping.

#### 3.2 CLEANING

• It is difficult for dirt to adhere to the **PRODEX** panel surface.

· If the surface becomes dirty or there are remains of the protective film adhesive, this can be cleaned with lukewarm water mixed with a liquid detergent using a soft cloth. Do not rub the surface when dry.

· Never use abrasive detergents.

• In the case of more resistant grime, the panel surface may be cleaned with a soft cloth (un-dyed) dampened with benzenefree petroleum ether (104°-140° F, 40-60°C, light naphtha).

• Never use cloths or sponges with abrasive cleaning or sanding products, as this may damage the surface of the product.

• Nor should aggressive solvents such as acetone, ethyl acetate, MEC, nail polish, etc., be used, as these may cause permanent damage by partially or completely dissolving the protective film surface or cause cracks, which may not be evident at first glance. These products must not be used on the reverse face of the panels either.

· Surface drying is best performed using an absorbent, lint-free cloth.

![](_page_46_Picture_29.jpeg)

![](_page_46_Picture_31.jpeg)

![](_page_46_Picture_34.jpeg)

• It is recommended to perform a cleaning test on a small area of the material for the purpose of verifying the efficacy of the procedure, and only then proceed with the remainder of the surface.

• There is no method for repairing scratched or dented panels.

• The use of solvents or chemical cleaning products must always be done according to the corresponding health and safety rules.

#### MAINTENANCE

• PRODEX panels do not require maintenance. In the case of dirt, refer to the Cleaning section.

![](_page_47_Picture_5.jpeg)

3.3

• Natural wood is a delicate material. There is no prescribed repair method for PRODEX panels. Damaged panels must be replaced with new ones.

# **4** REMOVAL INFORMATION

#### 4.1 REMOVAL

4.2

• The PRODEX product forms part of a ventilated facade system, the main components of which (aluminum, steel, wood and plastic) are easily separable and recyclable.

#### WASTE MANAGEMENT

• Reuse: reuse of the **PRODEX** panel for other applications with different requirements is encouraged.

· Recycling: the cellulose fibers of the core and the thermostable wooden sheet can be recycled. Recycling possibilities include its use for filler material for wood-based panels for construction use.

Dumping at landfill sites: the specifications that regulate and manage construction and demolition waste shall be followed, as well as any applicable local regulations. Disposal in industrial incinerators can also be considered.

• Sub-construction: the wood, aluminum or steel profiles may be reused for their original use, or recycled if the buildings have been carefully deconstructed.

# **6** ACCESSORIES

![](_page_47_Picture_17.jpeg)

![](_page_47_Figure_18.jpeg)

![](_page_47_Picture_22.jpeg)

SCR	IPTION	MATERIAL / FINISH		
- +0	J - Channel 10' (3048mm) long	Aluminum / Black lacquered		
	HAT - Channel 10' (3048mm) long	Aluminum / Black lacquered		

SPECIFIC ELEMENTS FOR THE SLAT SYSTEM

5.2

![](_page_48_Picture_1.jpeg)

REFERENCE	DESCRIPTION	MATERIAL / FINISH	
PRSS001		Prodema Slat Clip	Aluminium 6063 Rough T5
PRSS002	.15" .98" (25mm)	DIN7505B M3.5 for wooded batten	Stainless Steel
PRSS003	.15" (3.9mm)	DIN7504N M3.5 for metal profiles	Stainless Steel
PRSS004	900 11,00 50,00	Gap measuring tool	Galvanized Steel
PRSS005		Fixing screw	Stainless Steel

![](_page_49_Picture_0.jpeg)

![](_page_49_Picture_1.jpeg)

![](_page_49_Picture_2.jpeg)

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Prodema NATURAL WOOD BEAUTY	TECHNICAL DATA SHEET		Doc.: FTPRODEXUSA Rev.: 01- Ap 18 Page.: 1/1	
MATERIAL	THICKNESS:		SURFACE FINISH:	
PRODEX / PRODEX IGN		1/4" - 7/8"v(in) <sup>(1)</sup>	S	MOOTH:
TESTS	RESULTS	PROPERTY OR ATTRIBUTE	MESURE UNIT	STANDARD
1. INSPECTION				
Colour,pattern and surface finish	Due to the fact that wo unique. Colour and struc as knots and resin inclusi There are differences in lig	od is a natural product, each veneer may ture differences are considered as norms ons are not considered as defects, but a hht fastness perfomances depending on the source os the wood.	y be considered as al. Singularities such is a part of the decor. the wood species and	EN 436-8 Part. 5.2.2.3
2. DIMENSIONAL TOLERANCES				
Thickness (t) <sup>(1)</sup>	0.0157 0.0197 0.0236 0.0275 0.0315	$\begin{array}{l} 1/4" \leq t \leq 5/16"\\ 5/16" \leq t \leq 1/2"\\ 1/2" \leq t \leq 5/8"\\ 5/8" \leq t \leq 3/4"\\ 3/4" \leq t \leq 7/8" \end{array}$	in	EN 438-2 Part 5
Flatness <sup>(2)</sup>	0.050 0.036	$1/4" \le t < 3/8"$ $3/8" \le t$	in/ft	EN 438-2 Part 9
Length and width	+ 0.3937 / -0		in	EN 438-2 Part6
Edge straightness	0.018	Maximum deviaton	in/ft	EN 438-2 Part 7
Edge squareness	0.018	Maximum deviaton	in/ft	EN 438-2 Part 8
3. PHYSICAL PROPERTIES				
Bond Strenght	60	Strength of faiulure	psi	ASTM C297 -94
Flexural Modulus	> 1,800,000 >1,500,000	Machine Direction Cross Direction	psi	ASTM D1037-99
Flexural Strenght (MOR)	> 15,000 > 9,000	Machine Direction Cross Direction	psi	ASTM D1037-99
Freeze- Thaw Resistance	No visible change	Appearance		ICC-ES AC92 Section 3.2.2
Water Resistance	No sign of any visual	Appearance		ASTM D2247-11
4. WEATHER RESISTANCE				
Resistance to artificial weathering	No visible change	Appearance		ASTM G155 (2000 hours)
Salt Spray Exposure	No sign of any visual	Appearance		ASTM B117-11 (300 hours)
5. CE SAFETY REQUIREMENTS				
Reaction to fire	A B	Prodex IGN classification Prodex classificaction		ASTM E84-10b

(1) Prodex IGN available from 5/16 inches.

(2) Provided that the laminates are stored in the manner and conditions recommended by the manufacturer.