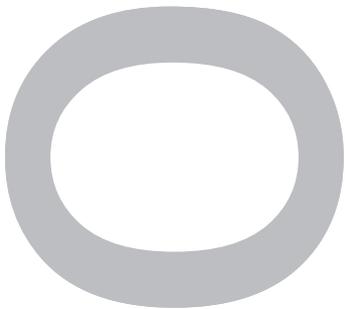
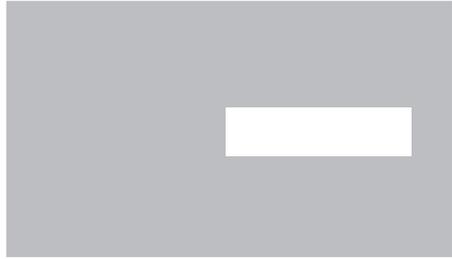


Uniclass L5162:P51	EPIC E26
CI/SfB	
(42)	Ri



NATURAL WOOD VENEERS  
FOR INTERIOR SURFACES

**Prodema**<sup>®</sup>  
Made to last wooden Products

EN  
A  
b  
o  
r  
e

interiors by Prodema®

# Prodema

interiors by Prodema®

# *Warm, Beautiful, Elegant...*

These are the words that spring to mind when people think of wood as a building and decoration material.

Wood, as a material widely available in nature, has been worked by man for thousands of years, and its applications have gradually been mastered over time.

At **Prodema** we have absorbed and concentrated all that age-old experience, we have upgraded it by adding a healthy dose of state-of-the-art technology, to create an original, cutting-edge range of natural wood products for the world of architecture and decoration, until recently unthinkable, thanks to its appearance, quality, range and, above all durability.

<b>1</b>	<b>ProdIN Materials</b>	<b>P.</b>
1.1	Natural wood characteristics	06
1.2	Certificates and guarantees	10
1.3	<i>Neptuno</i>	12
1.3.1	Composition	14
1.3.2	Technical features	15
1.3.3	Dimensions and weight	16
1.3.4	Colours	17
1.4	<i>Proligna</i>	20
1.4.1	Composition	22
1.4.2	Technical features	23
1.4.3	Dimensions and weight	24
1.4.4	Colours	25
1.5	<i>Auditorium</i>	28
1.5.1	Composition	30
1.5.2	Technical features	31
1.5.3	Dimensions and types of holes and grooving	32
1.5.4	Colours	34
1.6	<i>Supra</i>	36
1.6.1	Composition	38
1.6.2	Technical features	39
1.6.3	Dimensions	42
1.6.4	Colours	43
1.7	<i>Laminium</i>	46
1.7.1	Composition	48
1.7.2	Technical characteristics	49
1.7.3	Dimensions	50
1.7.4	Colours	51

## 2 Mounting Systems

2.1	Ventilated facade	53
2.2	Joint and dimensional stability	55
2.2.1	Expansion joints	55
2.2.2	Dimensional stability	56
2.3	Substructure	57
2.3.1	Different types of battens and auxiliary elements	57
2.3.2	Distance between vertical posts	58
2.3.3	Anchoring to the facade	59
2.4	Types of anchoring for wall cladding with ProdIN (material Neptuno Proligna and Auditorium)	60
2.4.1	Exposed fixing	60
2.4.2	Concealed fixing with hanging profile	63
2.4.3	Concealed fixing with gluing system	66
2.5	Corner solutions	70

2.6	Types of fixing for ceiling cladding with ProdlN (Material Neptuno Proligna and Auditorium)	71
2.6.1	Rectangular pieces	71
2.6.2	Square pieces	71
2.7	Type of fixing for Supra	73
2.8	Types of fixing for Laminium	77

### 3 Product care and handling

3.1	Shipping	79
3.2	Storage	79
3.3	Machining	80
3.3.1	Cutting Recommendations	80
3.3.2	Drilling Recommendations	82
3.4	Maintenance and Cleaning	84
3.5	Repairing a damaged panel	85

### 4 Accessories

4.1	Strips	86
4.1.1	Aluminium	86
4.1.2	Steel	86
4.2	Facade fixing elements	87
4.2.1	Aluminium	87
4.2.2	Steel	87
4.3	Screws and rivets	88
4.3.1	Fixing the board to the metal battens	88
4.3.2	Fixing the board to the wooden battens	88
4.3.3	Fixing the board to a hanging hook	90
4.4	Sound insulation and floor movement joint	90
4.4.1	Polyethylene foam sound insulation	90
4.4.2	Sound insulation with steam barrier	90
4.4.3	Movement joint for floors	91
4.5	Auxiliary elements	91
4.5.1	Screwdriver	91
4.5.2	Acoustic film	91

### 5 Other Prodema products

92

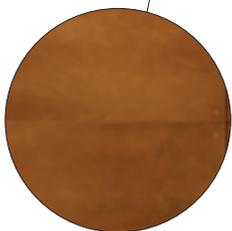
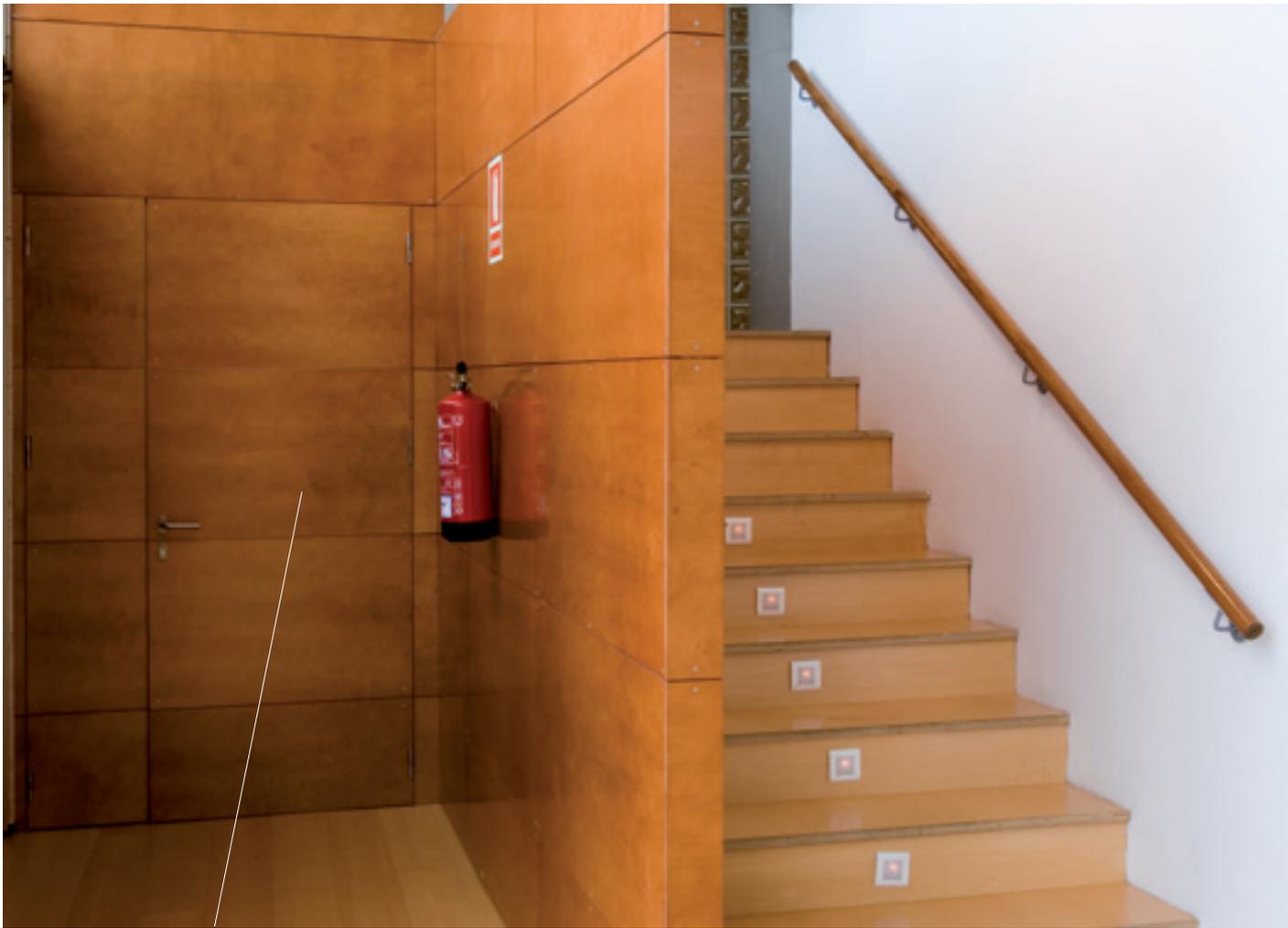
### 6 Prodema the company

96

# 1. Prod **I** **N** Material

## 1.1. Natural wood characteristics

The main feature of **ProdIN** materials is their natural wood veneer which means that they possess special features of this material, such as the following:



Certain darker areas on the wood itself.

**Civic Centre**  
Architect. Ángel de Diego  
Barakaldo (Spain)



**Maritime Museum**  
Architect. Juan Francisco Paz  
Bilbao (Spain)

**Transversal mirror images of the wood.**



The description of the products' features and the technical instructions for their use contained in this document do not imply any contractual obligations whatsoever on the manufacturer's part. They correspond to current knowledge and may be modified without prior warning. This document contains general information that may be updated through that given in the manufacturer's website.

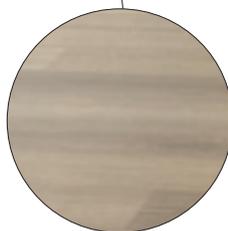
**Prod I N**  
interiors by Prodema®

7



Hotel Astoria 7  
Joaquín Zubiría  
San Sebastián (Spain)

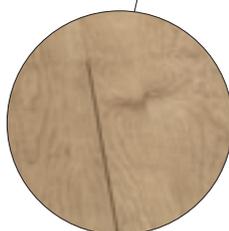
Variation in colour, shade and brightness on various panels made from the same type of wood.





Prodema Offices  
José Manuel Ibarгойen  
Legorreta (Spain)

**Knots or holes from the branches of the tree.**



The description of the products' features and the technical instructions for their use contained in this document do not imply any contractual obligations whatsoever on the manufacturer's part. They correspond to current knowledge and may be modified without prior warning. This document contains general information that may be updated through that given in the manufacturer's website.

**Prod** **IN**  
interiors by Prodema®

## 1.2 Certificates and guarantees

**Prodema, S.A.**, as part of its philosophy of continuous improvement, enlists the cooperation of companies of international renown to certify its products and processes.

**Prodema, S.A.** is registered under the following standards:

- ISO 9001-2000 quality management
- ISO 14001 Environment
- Chain of custody PEFC Annex 4 on request for **ProdEX** and **Neptuno**.

The excellent features of **ProdIN** have been tested in prestigious laboratories, meeting the requirements of EN-438 and EN 13501-1:2002 on reaction to fire.

**Prodema, S.A.** conducts comprehensive quality control on **ProdIN** and offers a 20-year guarantee \* for this product.



\* The general conditions of the guarantee may be changed without prior notice.



# Prodema

interiors by Prodema®

## *Interior style*

**ProdIN** (by **Prodema**), our new line of interior cladding, offers exciting possibilities to the world of architecture and interior decoration.

Because the range of collections IDP (by **Prodema**) is designed to meet every need, as every one of its products has a particular internal core giving it unique technical features for every application.

All of which coupled with the advantages of a material as noble, beautiful and versatile as wood, and the guarantee of performance and durability offered by the protective formula patented by **Prodema**, based on paper and resins.

Because beauty is also inside.



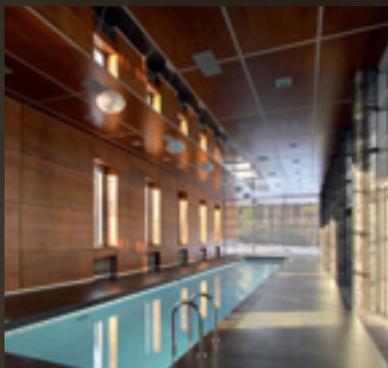
C o l l e c t i o n

# *Neptuno*

Humidity  
is not a problem

With Its Bakelite core for indoor cladding,  
specially designed for wet environments.

By the pool or spa we can also enjoy the beauty of a **ProdIN** product (by **Prodema**). Because thanks to the **Neptuno** range, wood is getting closer to water than ever without any problem, providing a touch of warmth to otherwise somewhat cold spaces (swimming pools, spas and even bathrooms).



**Village Pavlolo**  
Tsimailo, Liashenko and Partners  
Moscow (Russia)



**Holstein Therme**  
Ziebel und Partner Lübeck  
Bad Schwartau (Germany)

## 1.3 *Neptuno*

### 1.3.1 Composition

**Neptuno** panels are made up of a cellulose fibre core that has been impregnated with thermosetting phenolic resin and its natural wooden surface is specially treated to comply with the toughest requirements of humid environments.



## 1.3.2 Technical Characteristics

 Made to last wooden Products	<h1>TECHNICAL DATA SHEET</h1>			Doc.: FTNEPTUNO	
				Rev.: 005 –Sept 2009	
				Page: 1/1	
MATERIAL:		THICKNESS:		SURFACE FINISH:	
NEPTUNO		6-22 mm		TEXTURE *	
TESTS	RESULTS	PROPERTY OR ATTRIBUTE	UNIT OF MESURE	STANDARD	
<b>1. INSPECTION REQUIREMENTS</b>					
Colour, pattern and surface finish	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.				EN 438-8 Part 5.2.2.3
<b>2. DIMENSIONAL TOLERANCES</b>					
Thickness (t)	$\pm 0,40$ $\pm 0,50$ $\pm 0,60$ $\pm 0,70$ $\pm 0,80$	$6,0 \leq t < 8,0$ $8,0 \leq t < 12,0$ $12,0 \leq t < 16,0$ $16,0 \leq t < 20,0$ $20,0 \leq t < 25,0$	mm	EN 438-2 Part 5	
Length and width	+ 10 / - 0	-----	mm	EN 438-2 Part 6	
Edge straightness	1,5	-----	mm/m	EN 438-2 Part 7	
Edge squareness	1,5	-----	mm/m	EN 438-2 Part 8	
<b>3. PHYSICAL PROPERTIES</b>					
Dimensional stability at elevated temperatures	0,30 0,60	Longrain Crossgrain	% max.	EN 438-2 Part 17	
Resistance to impact (large diameter ball)	$\geq 1.800$	Maximum height for which no visible surface cracking or imprint greater than 10 mm ( $t \geq 6$ mm)	mm	EN 438-2 Part 21	
Flexural strength	$\geq 80$ $\geq 80$	Longrain Crossgrain	MPa	EN ISO 178	
Flexural Modulus	$\geq 9.000$ $\geq 9.000$	Longrain Crossgrain	MPa	EN ISO 178	
Light fastness (Xenon arc)	$\geq 4$ < 4 (A)	Contrast	Grey scale rating	EN 438-2 Part 27	
<b>4. CE REQUIREMENTS</b>					
Reaction to fire	C-s2,d0	Euroclass $t \geq 6$ mm	Classification	EN 13.501-1	
Water vapour permeability	110 250	Wet cup method Dry cup method	$\mu$	EN 438-7 Part 4.4	
Resistance to fixings	> 2.000 > 3.000 > 4.000	Screw holding value for $t = 6$ mm Screw holding value for $t = 8$ mm Screw holding value for $t \geq 10$ mm	N	EN 438-7 Part 4.5	
Density	$\geq 1,35$	Density	g/cm <sup>3</sup>	EN ISO 1.183	
Resistance to immersion in boiling water	$\leq 2$ $\leq 2$ $\geq 4$	Mass increase Moisture absorbed Appearance	% Rating	EN 438-2 Part 12	
Tensile strength	$\geq 60$	Longrain Crossgrain	MPa	EN ISO 527-2	
Release of formaldehyde	E1	Classification	Rating	EN 438-7 Part 4.11	

(A) Maple, Natural Beech, White Oak

\* Except for the colours Light Brown, Rustik, Pale, Mocca, Cream, Deep Brown, Dark Brown, Ice Grey, which have the surface finish Smooth

### Neptuno Fire reaction

Fireproof material

Thickness  $\geq 6$  mm | Class.: B-s2, d0 (according to EN 13.501-1)

NON fireproof material

Thickness  $\geq 6$  mm | Class.: C-s2, d0 (according to EN 13.501-1)

### 1.3.3 Size and weight

Dimensions:

Length x Width

2.440 mm x 1.220 mm

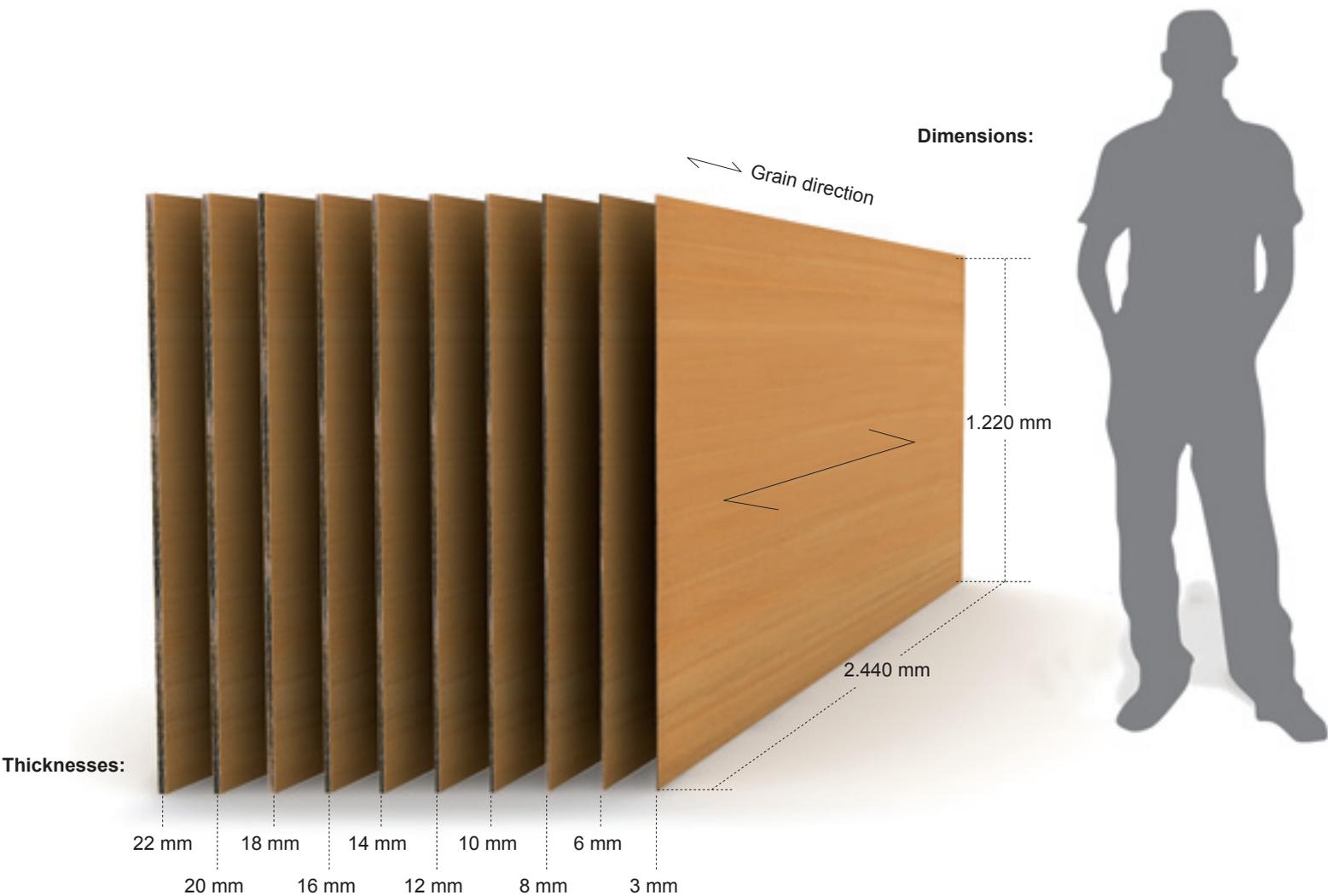
Thicknesses

3, 6, 8, 10, 12, 14, 16, 18, 20, 22 mm

Weight:

Thickness of board	3	6	8	10	12	14	16	18	20	22	(mm)
Weight / surface	4,05	8,10	10,80	13,50	16,20	18,90	21,60	24,30	27,00	29,70	(kg / m <sup>2</sup> )

(For dimensional tolerances see data sheet)



### 1.3.4 Colours

**Prodema** panel veneers are made with natural wood so the tone and graining of the samples are a mere guide. The surface composition of the **Prodema** panels may also vary depending on the application, so there may be differences in tone for the same colour in the different families of panels.

## *Flat cut wood*



# Rotary cut wood

## Ayous Veneer

---



Natural A\*



Dark Brown\*\*



Light brown\*\*



Light\*\*



Cream\*\*



Mocca\*\*



Black Wood\*\*



### Large Diamond Engraving:

Available in Light brown, Rustic, light, Mocca, Cream, Roasted Brown, Dark Brown, Black Wood and Ice Grey  $\geq 10$  mm.

## Okume Veneer

---



Roasted Brown\*\*



Rustic\*\*



Ice Grey\*\*

Would you like a sample of some of our products?

Simply send an email to: [prodema@prodema.com](mailto:prodema@prodema.com) and we will get it to you.

[www.prodema.com](http://www.prodema.com)

\* **Neptuno** Texture Finish (raised).  
 \*\* **Neptuno** Smooth finish (smooth).



Village Pavlolo  
Tsimailo, Liashenko and Partners  
Moscow (Russia)



C o l l e c t i o n

# *Proligna*

P o d u c t s w i t h a c o r e

The most extensive range of colours and interior cladding finishes for dry environments.

**Deeply special.**

Interior wooden cladding contributes Immense features to any given space: warmth, beauty, comfort, style and even light and joy, making it a vibrant place where people feel more comfortable.



**BEC**  
Idom Engineering Studio, Sener  
Barakaldo (Spain)

## 1.4 *Proligna*

### 1.4.1 Composition

**Proligna** panels have a plywood core that has been impregnated with thermosetting phenolic resins and the natural wood surface is protected by a proprietary wear-resistant film or coat



## 1.4.2 Technical characteristics

 Made to last wooden Products		<h1>TECHNICAL DATA SHEET</h1>		Doc.: FTPROLIGNA	
				Rev.: 007 – Sept 2009	
				Page: 1/1	
MATERIAL:		THICKNESS :		SURFACE FINISH :	
PROLIGNA		8-23 mm		TEXTURE	
TESTS	RESULTS	PROPERTY OR ATTRIBUTE	UNIT OF MESURE	STANDARD	
<b>1. INSPECTION REQUIREMENTS</b>					
Colour, pattern and surface finish	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.			EN 438-8 Part 5.2.2.3	
<b>2. DIMENSIONAL TOLERANCES</b>					
Thickness (t)	7,0 – 9,6 9,9 – 12,4 12,9 – 15,6 15,7 – 18,3 18,9 – 21,3	t = 8,0 t = 11,0 t = 14,0 t = 17,0 t = 20,0	mm	EN 438-2 Part 5	
Length and width	+ 10 / - 0	----	mm	EN 438-2 Part 6	
Edge straightness	1,5	----	mm/m	EN 438-2 Part 7	
Edge squareness	1,5	----	mm/m	EN 438-2 Part 8	
<b>3. GENERAL</b>					
Flexural strength	≥ 70 ≥ 60	Longitudinal direction Transversal direction	MPa	EN 310	
Flexural Modulus	≥ 7.000 ≥ 6.000	Longitudinal direction Transversal direction	MPa	EN 310	
Resistance to surface wear	≥ 50 ≥ 150	Resistance to surface wear	Revolutions Initial wear point Wear resistance	EN 438-2 Part 10	
Resistance to immersion in boiling water	≥ 4	Aspect	Rating	EN 438-2 Part 12	
Resistance to scratching	≥ 2	Force	Rating	EN 438-2 Part 25	
Lightfastness (Xenon arc)	≥ 4 < 4 (A)	Contrast	Grey scale rating	EN 438-2 Part 27	
Perpendicular tensile strength	≥ 2	Adhesion force	MPa	ASTM C 297	
<b>4. CE REQUIREMENTS</b>					
Reaction to fire	D-s3,d0	Euroclass t ≥ 8 mm	Classification	EN 13.501-1	
Resistance to fixings	≥ 200	Force	N/mm	EN 438-7 Part 4.5	
Density	≥ 0,75	Density	g/cm <sup>3</sup>	-	
Content of pentachlorophenol	≤ 5	Concentration	ppm	EN 438-7 Part 4.10	
Release of formaldehyde	E1	Release of formaldehyde	Class	EN 717-2	
Bonding strength	≥ 1,420	Bond strength	MPa	EN 438-7 Part 4.7	
Flexural tensile strength	≥ 1,420	Bond strength	MPa	EN 438-7 Part 4.8	
Glue-line quality	5	Expression of results	Rating	EN 438-7 Part 4.13.3	
Resistance to elevated temperature	No damage	Aspect	Result	EN 438-7 Part 4.13.3	
Water resistance	≤ 7	Thickness increase	%	EN 438-7 Part 4.13.3	

(A) Maple, Natural Beech, White Oak

### **Prologna** Reaction to fire

Fireproof material

Thickness ≥ 14 mm | Clas.: B-s2, d0 (according to EN 13.501-1)

NON fireproof material

Thickness ≥ 8 mm | Class.: D-s3, d0 (according to EN 13.501-1)

### 1.4.3 Size and weight

Dimensions:

Length x Width

2.440 mm x 1.220 mm

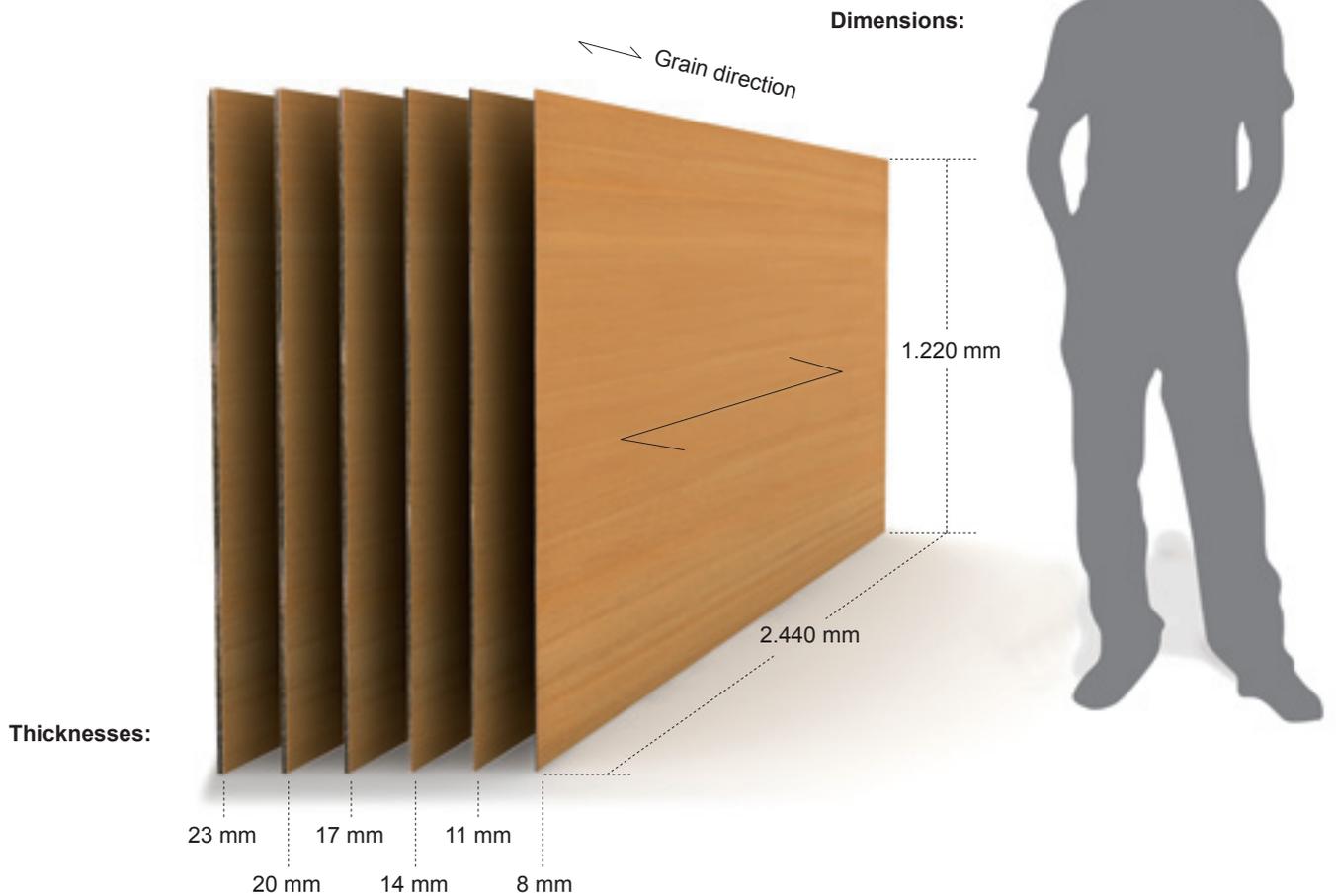
Thicknesses

8; 11; 14; 17; 20; 23 mm

Weight:

Thickness of board	8	11	14	17	20	23	(mm)
Weight / surface	6,40	8,80	11,20	13,60	16,00	18,40	(kg / m <sup>2</sup> )

(For dimensional tolerances see data sheet)



### 1.4.4 Colours

**Prodema** panels veneers are made with natural wood so the tone and grain of the samples are a mere guide. The surface composition of the **Prodema** panels may also vary depending on the application, so there may be differences in tone for the same colour in the different families of panels.

## *Flat cut wood*



## *Rotary cut wood* *Ayous Veneer*

---



Dark Brown



Light brown



Mocca



Black Wood



Honey



Natural A

## *Okume Veneer*

---



Roasted Brown



Almond

Would you like a sample of some of our products?

Simply send an email to:  
[prodema@prodema.com](mailto:prodema@prodema.com)  
and we will get it to you.

[www.prodema.com](http://www.prodema.com)

All **Prologna** finishes are Texture (raised)



**Civic Centre**  
Architect . Ángel de Diego  
Barakaldo (Spain)



C o l l e c t i o n

# *Auditorium*

L i s t e n   t o   t h e   s i l e n c e

Drilled panels and with a core composed of a wood and resin isotropic mass for projects with acoustic needs.



In a world increasingly polluted acoustically, more and more spaces demand proper conditioning. For them, at **ProdIN** (by **Prodema**) we have developed the **Auditorium** line.

Both for hotel conference rooms or offices, and restaurants or entertainment venues, etc., the **Auditorium** line offers a unique combination of acoustics and aesthetics, with its natural wood finish and wide range of colours.

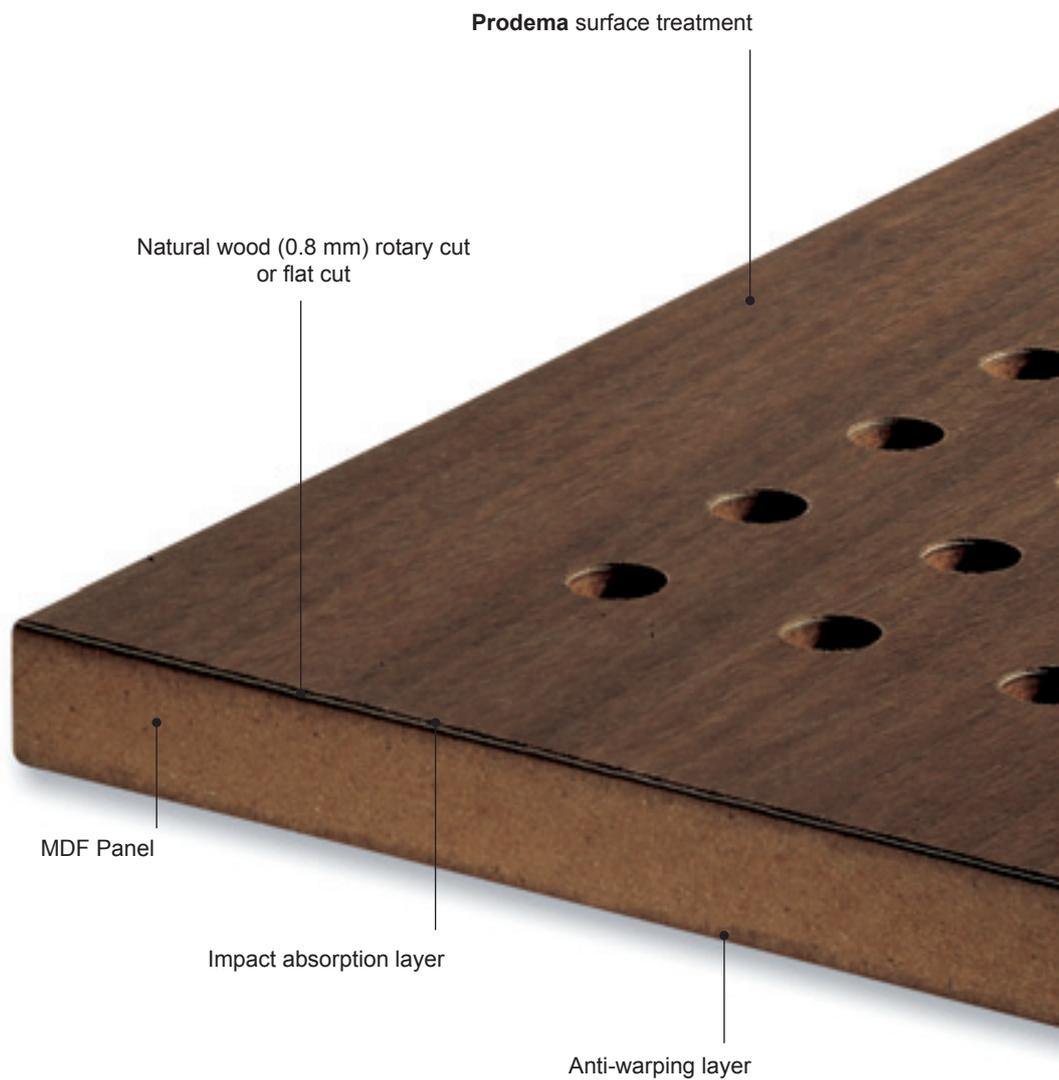


**Caja Duero auditorium**  
Architect: Manuel de Lara y Jorge Miró  
Salamanca (Spain)

## 1.5 *Auditorium*

### 1.5.1 Composition

**Auditorium** panels have a MDF panel core and a natural wood surface, protected by **Prodema's** own formula. Different types of holes can be offered depending on the desired sound absorption.



## 1.5.2 Technical characteristics

	<h1>TECHNICAL DATA SHEET</h1>		Doc.: FTAUDITORIUMIGN	
			Rev.: 006 – Sept 2009	
			Page: 1/1	
MATERIAL:		THICKNESS:		SURFACE FINISH :
AUDITORIUM IGN		12- 18 mm		TEXTURE
TESTS	RESULTS	PROPERTY OR ATTRIBUTE	UNIT OF MESURE	STANDARD
<b>1. INSPECTION REQUIREMENTS</b>				
Colour, pattern and surface finish	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.			EN 438-8 Part 5.2.2.3
<b>2. DIMENSIONAL TOLERANCES</b>				
Thickness (t)	+ 1,2 / - 0,8 + 1,3 / - 0,9	l = 12,0 l = 14,0	mm	EN 438-2 Part 5
Length and width	+ 10 / - 0	-----	mm	EN 438-2 Part 6
Edge straightness	1,5	-----	mm/m	EN 438-2 Part 7
Edge squareness	1,5	-----	mm/m	EN 438-2 Part 8
<b>3. GENERAL</b>				
Flexural strength	≥ 70 ≥ 50	Longitudinal direction Transversal direction	MPa	EN 310
Flexural Modulus	≥ 7.000 ≥ 5.000	Longitudinal direction Transversal direction	MPa	EN 310
Resistance to surface wear	≥ 50 ≥ 150	Resistance to surface wear	Revolutions Initial wear point Wear resistance	EN 438-2 Part 10
Resistance to scratching	≥ 2	Force	Rating	EN 438-2 Part 25
Lightfastness (Xenon arc)	≥ 4 < 4 (A)	Contrast	Grey scale rating	EN 438-2 Part 27
Perpendicular tensile strength	≥ 1	Adhesion force	MPa	ASTM C 297
<b>4. CE REQUIREMENTS</b>				
Reaction to fire	C-s2,d0	Euroclass l ≥ 12 mm	Classification	EN 13.501-1
Resistance to fixings	≥ 130	Force	N/mm	EN 438-7 Part 4.5
Density	≥ 0,80	Density	g/cm <sup>3</sup>	-
Content of pentachlorophenol	≤ 5	Concentration	ppm	EN 438-7 Part 4.10
Release of formaldehyde	E1	Release of formaldehyde	Class	EN 717-2
Bonding strength	≥ 1,700	Bond strength	MPa	EN 438-7 Part 4.7
Perpendicular tensile strength	≥ 1,700	Bond strength	MPa	EN 438-7 Part 4.8
Glue-line quality	3	Expression of results	Rating	EN 438-7 Part 4.13.3
Resistance to elevated temperature	No damage	Aspect	Result	EN 438-7 Part 4.13.3
Water resistance	≤ 4,0	Thickness increase	%	EN 438-7 Part 4.13.3

(A) Maple, Natural Beech, White Oak

### Auditorium Reaction to fire

Fireproof material

Thickness ≥ 12 mm | Class.: C-s2, d0 (according to EN 13.501-1)

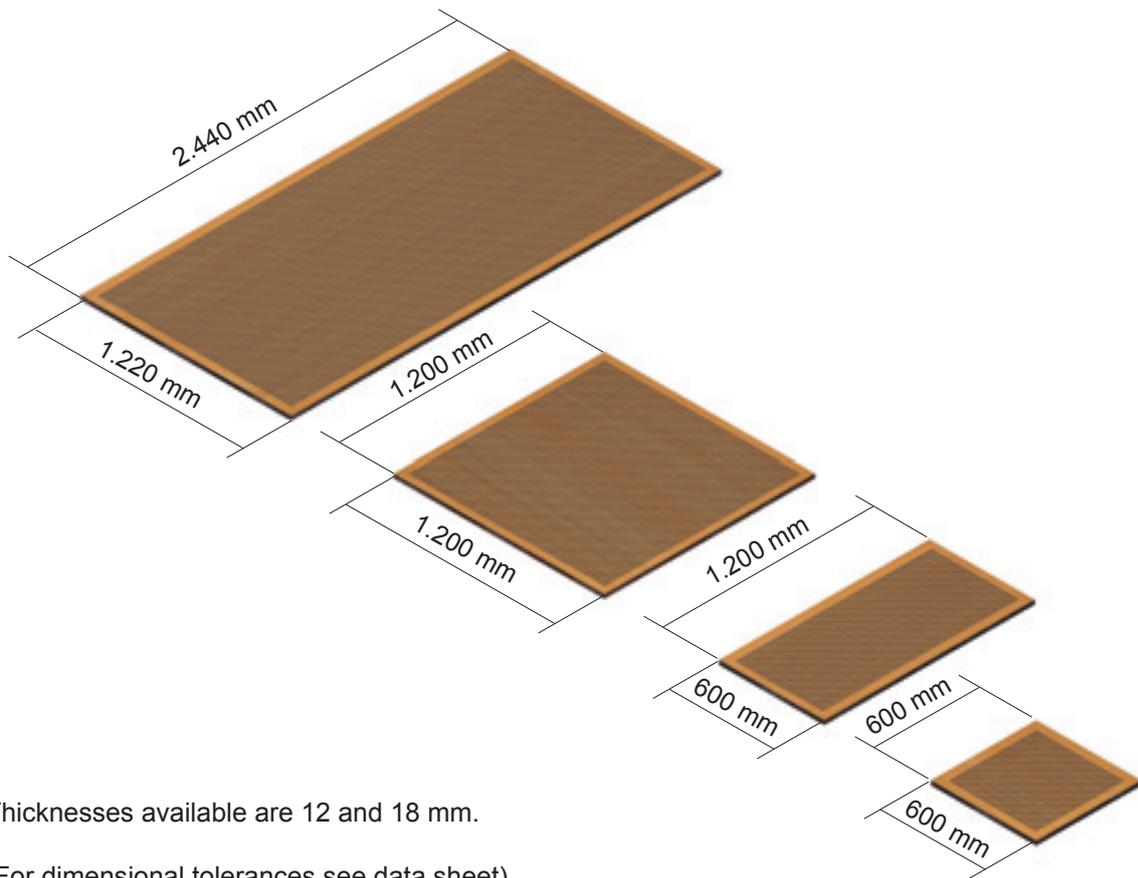
### 1.5.3 Dimensions and types of holes and grooves

#### Dimensions:

The standard size **Auditorium** panel without holes is 2.440 x 1.220 mm.

The dimensions of the panels with holes and grooves are:

- 2.440 x 1.220 mm
- 1.200 x 1.200 mm
- 1.200 x 600 mm
- 600 x 600 mm

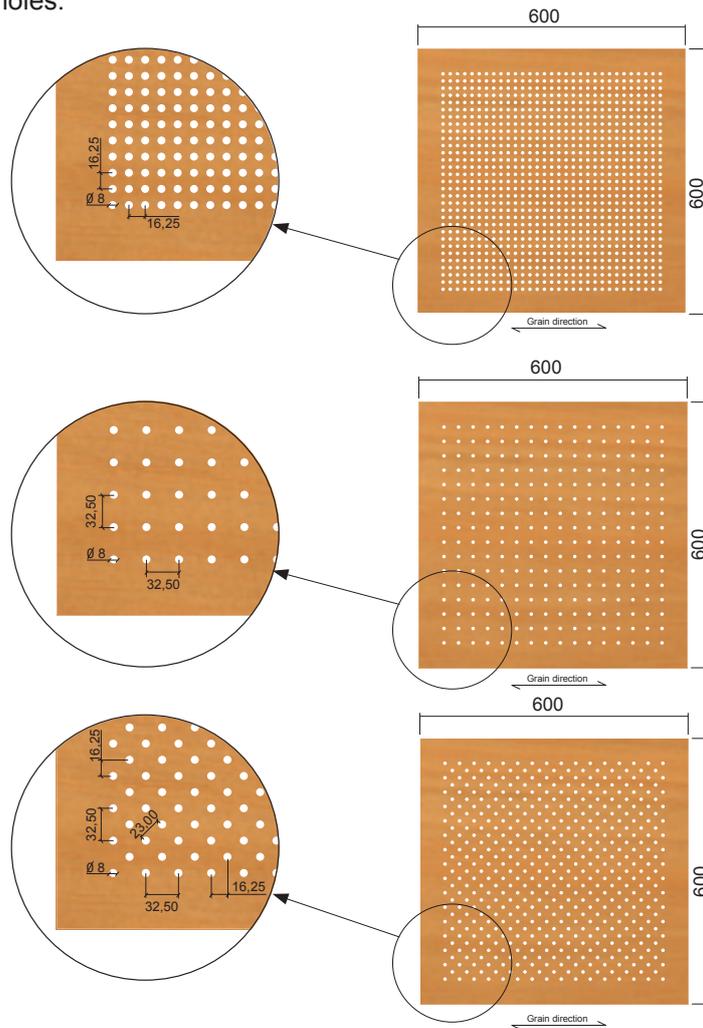


Thicknesses available are 12 and 18 mm.

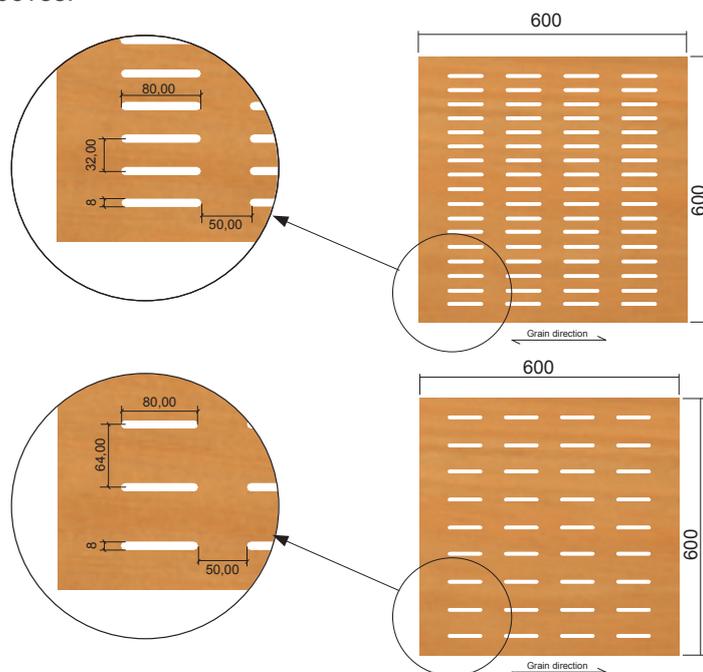
(For dimensional tolerances see data sheet)

## Holes and grooves:

- Three types of holes:



- Two types of grooves:



All dimensions are rounded off and in mm.

The acoustic film can be attached to the back part of the machined boards. (See chapter 4.5.2)

### 1.5.4 Colours

**Prodema** panel veneers are made with natural wood so the tone and graining of the samples is a mere guide. The surface composition of the **Prodema** panels may also vary depending on the application, so there may be differences in tone for the same colour in the different families of panels.

## *Flat cut wood*



Changes in tone and grain between strips are particularly marked in the cases Eucalyptus and Teak so it is advisable to consult with the factory.

## *Rotary cut wood* *Ayous Veneer*

---



Dark Brown



Light brown



Mocca



Black Wood



Honey



Natural A

## *Okume Veneer*

---



Roasted Brown



Almond

Would you like a sample of some of our products?

Simply send an email to:  
[prodema@prodema.com](mailto:prodema@prodema.com)  
and we will get it to you.

[www.prodema.com](http://www.prodema.com)

All Auditorium finishes are Texture (raised).



C O L L E C T I O N

# *Supra*

**T H E S U P R A S O L U T I O N F O R  
C O M M E R C I A L A R E A S**

Plywood core panel impregnated with thermosetting phenolic resins for heavy duty flooring

One of the great rules of Marketing states that the environment has a crucial influence on the customer's purchasing decisions. It is also a well known fact that wood gives the public that cosy feel good factor.

That's why many large commercial brands worldwide have relied on the **Supra** collection to decorate their establishments. Because they have discovered that a comfortable customer is a more profitable customer.



Women' Secret  
Spain

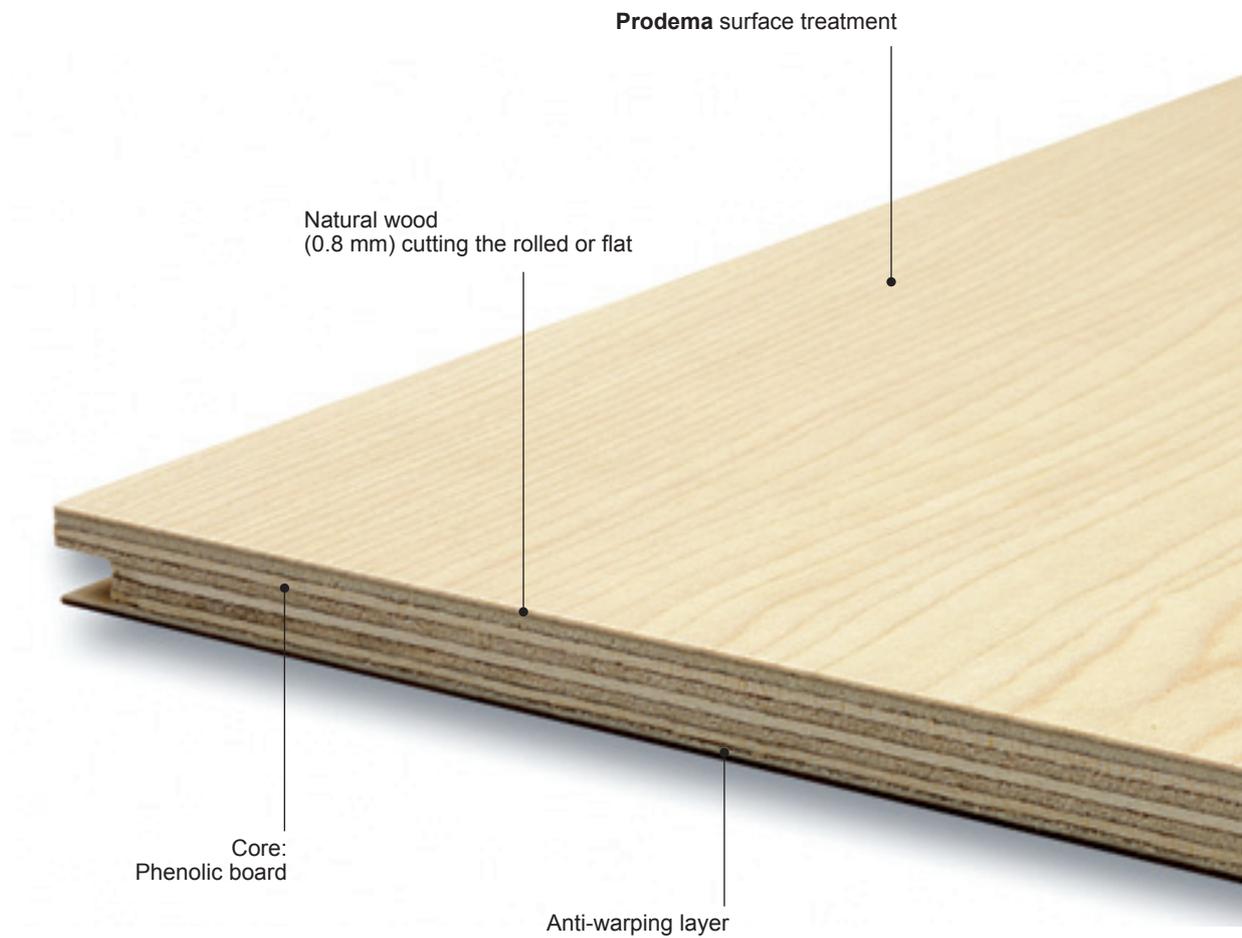


Viva Inmobiliarias  
Arquea Studio  
San Sebastián (Spain)

## 1.6 *Supra*

### 1.6.1 Composition

**Supra** panels are composed of a plywood core impregnated with thermosetting phenolic resins, and a natural wood veneer protected by a proprietary coat, rendering **Supra** previously unimaginable performance characteristics.



## 1.6.2 Technical characteristics

**Supra** provides all the warmth of natural wood beauty without forgoing the best mechanical properties such as resistance to wear and tear, impact and natural light, the result of **Prodema's** experience in manufacturing high pressure laminates (HPL) for exteriors.



### WEAR AND TEAR PROTECTION

**Supra** comes with **Prodema's** own exclusive protective surface, which gives it exceptional resistance to wear and tear, meeting the requirements of the class greater than or equal to AC4 (general commercial use) in accordance with EN 438-2. This makes **Supra** a highly durable floor that needs no maintenance whatsoever, in contrast with traditional parquets.



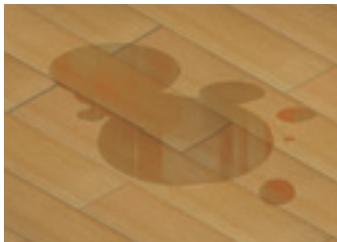
### SCRATCH RESISTANT

The exclusive **Prodema** protective layer also provides **Supra** exceptional resistance to scratching that meets the requirements of grade 3 (random scratches or slight surface marks, or marks not visible under a force of 2Nw) according to the EN 438 -- 2 standard.



### RESISTANCE TO IMPACT

The exclusive **Prodema** protective layer together with the 0.5 mm BAKELITE sub-layer as a result of **Prodema's** HPL technology provide outstanding resistance to impacts over 10 Nw under EN 438-2.



### RESISTANCE TO MOISTURE

**Supra** provides the best moisture resistance in its class. The phenolic board core that forms **Supra** nucleus is an excellent protection guarantee that meets the requirements of the EN 13,553, awarding **Supra** with the category "WATERTIGHT."



### RESISTANCE TO STAINS

The vast majority of commonly used products leave no stain on **Supra** flooring. Spillage of products such as acetone, citric acid, bleach (Group 1), hydrogen peroxide, coffee, vinegar (Group 2), caustic soda (Group 3), are eliminated within the first hours with a simple cloth and leave no mark on the floor.

**Supra** meets the grade 5 requirements (no visible change) for the products in Group 1 and 2 of the EN 438-2 and grade 4 (slight change in shine and / or colour is only visible at certain angles) for those in Group 3.



### RESISTANCE TO NATURAL LIGHT

Despite its natural wood base and while **Supra** is designed for indoor use, the exclusive **Prodema** protective layer gives **Supra** the highest level of resistance in its category. **Supra** meets grade 4 \* at least (according to grey scale) of light fastness according to EN 438 in the vast majority of its finishes.

\* Except colours shown on the data sheet.



### NOISE REDUCTION

The **Prodema** noise reduction solution involves the incorporation of a layer of foam under the **Supra** covering at the time of installation. Unlike other solutions on the market that incorporate similar foam glued to the underside of the flooring, thus creating potential unprotected grooves beneath the flooring, **Prodema** has chosen to provide an independent layer for those locations where additional sound reduction is required.



### REACTION TO FIRE

**Supra** complies all the requirements for floors in relation to reaction to fire and complies with the Bfl - s1 grade in accordance with EN 13.501-1.

 <b>Prodema®</b> Made to last wooden Products		<h1>TECHNICAL SHEET</h1>		Doc.: FTSUPRA	
				Rev.: 008 – Sept 2009	
				Page: 1/1	
<b>MATERIAL:</b>		<b>THICKNESS:</b>		<b>SURFACE FINISH:</b>	
SUPRA		11- 14 mm		SUPER MATT	
TESTS	RESULTS	PROPERTY OR ATTRIBUTE	UNIT OF MESURE	STANDARD	
<b>1. INSPECTION REQUIREMENTS</b>					
Colour, pattern and surface finish	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.			EN 438-8 Part 5.2.2.3	
<b>2. DIMENSIONAL TOLERANCES</b>					
Gap between pieces	≤ 0,20	----	mm	EN 13.329	
Leap between pieces	≤ 0,15	----	mm	EN 13.329	
<b>3. GENERAL</b>					
Impact resistance (small diameter ball)	≥ 10	Force Resort	N	EN 438-2 Part 20	
Impact resistance (big diameter ball)	≤ 10	Minimum height. 1.600 mm Diameter of the kerf	mm	EN 438-2 Part 21	
Resistance to immersion in boiling water	≥ 4	Aspect	Rating	EN 438-2 Part 12	
Resistance to scratching	≥ 3	Force	Rating	EN 438-2 Part 25	
Light fastness (xenon arc)	≥ 4 < 4 (A)	Aspect	Grey scale rating	EN 438-2 Part 27	
Resistance to surface wear	≥ AC4 ≥ 4.000	Initial point (IP)	Revolutions	EN 438-2 Part 11	
Resistance to stain	≥ 5 ≥ 4	Aspect	Rating Groups 1 and 2 Group 3	EN 438-2 Part 26	
Resistance to cigarettes burns	≥ 4	Aspect	Rating	EN 438-2 Part 30	
Resistance to sliding	<b>Class 1</b>	Resistance to sliding	USRV (Rd)	UNE-ENV 12633-2003 ANNEX A	
<b>4. CE SAFETY REQUIREMENTS</b>					
Reaction to fire	<b>B<sub>2</sub>-s1</b>	Euroclass t ≥ 11 mm	Classification	EN 13.501-1	
Thermal conductivity	<b>0,17</b>	Conductivity	W/ (m K)	EN 12.524	
Density	≥ <b>0,75</b>	Density	g/cm <sup>3</sup>	-	
Pentachlorophenol content	≤ 5	Concentration	ppm	EN 438-7 Part 4.10	
Formaldehyde release	<b>E1</b>	Release of formaldehyde	Class	EN 717-2	
Electric resistance	<b>825</b>	Vertical resistance	MΩ	EN 1.081	
Tendency to accumulation electrostatic charges	< 2	Potential difference	kV	EN 1.815	
Water tightness	<b>Watertight</b>	Water penetration	Classification	EN 13.553	
Slide	<b>0,73</b>	Dynamic coefficient of friction	μ	EN 13.893	

(A) Maple, Natural Beech, White Oak, Dark Brown

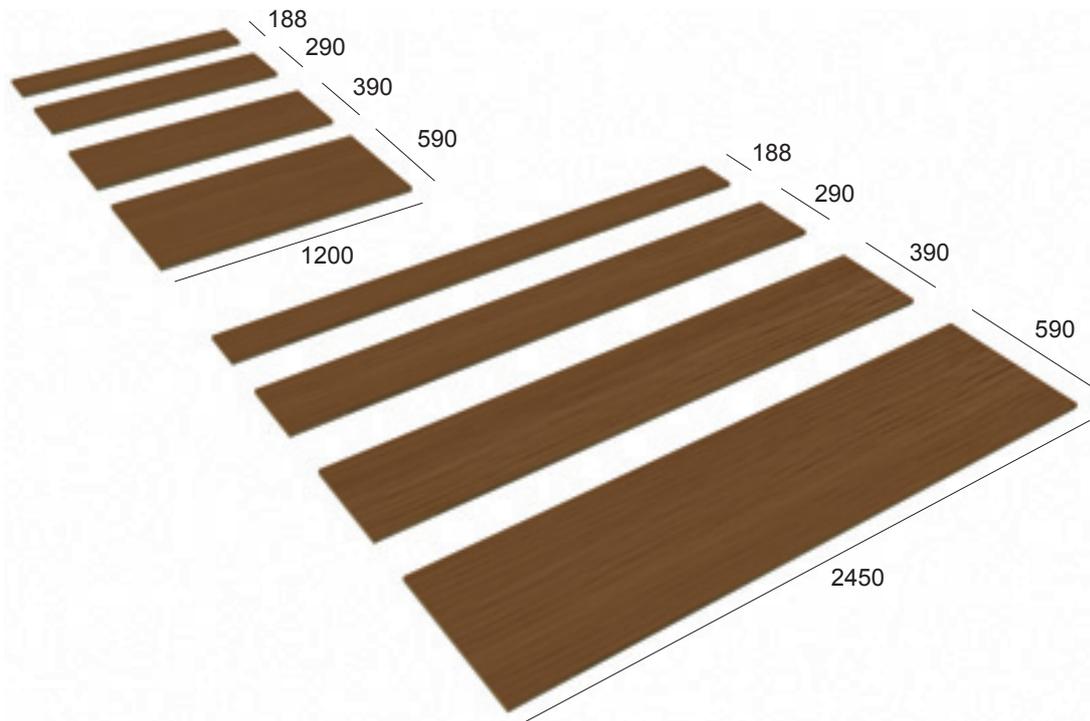
### Supra Reaction to fire

Fireproof material

Thickness ≥ 11 mm | Class.: B<sub>s</sub>-s1 (according to EN 13.501-1)

### 1.6.3 Dimensions

The standard dimension of the **Supra** strip is 2450 x 188 x 11 mm and the following measurements are available:



The thicknesses available are 11 mm (standard) and 14 mm on request.

(For dimensional tolerances see data sheet)

### 1.6.4 Colours

**Prodema** panel veneers are made with natural wood so the tone and graining of the samples is a mere guide. The surface composition of the **Prodema** panels may also vary depending on the application, so there may be differences in tone for the same colour in the different families of panels.

## *Flat cut wood*



Maple



Natural Beech



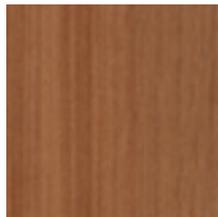
White Oak



Zebrano



Cherry



African Cedar



Sapelli



Bubinga



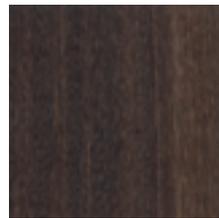
Eucalyptus



Hickory



Teak



Wenge



26206



Limus



Quercus alba



Quercus



Bamboo

Changes in tone and grain between strips is particularly marked in the cases Eucalyptus and Teak, so it is advisable to consult with the factory.

## *Rotary cut wood* *Ayous veneer*

---



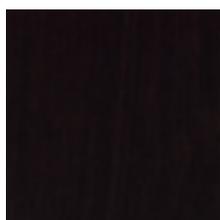
Dark Brown



Light brown



Mocca



Black Wood



Honey



Natural A

## *Okume Veneer*

---



Roasted Brown



Almond

Would you like a sample of some of our products?

Simply send an email to:  
[prodema@prodema.com](mailto:prodema@prodema.com)  
and we will get it to you.

[www.prodema.com](http://www.prodema.com)

All **Supra** finishes are Super Matt (smooth matte)



Hotel Astoria 7  
Joaquín Zubiría  
San Sebastián (Spain)



C o l l e c t i o n

# *Laminium*

The best solution

The Romans were great architects, and so they were able to construct roads, such as the Via **Laminium** linking the cities of Valencia and Zaragoza, and that still stands to this day.

**Laminium**, a natural wood laminate, like all other **Prodema** products, offers a long-lasting solution ideal for technical floors, and door cladding, etc.



**Bank Vizavi**  
A. Levinson & Partners  
Moscow (Russia)

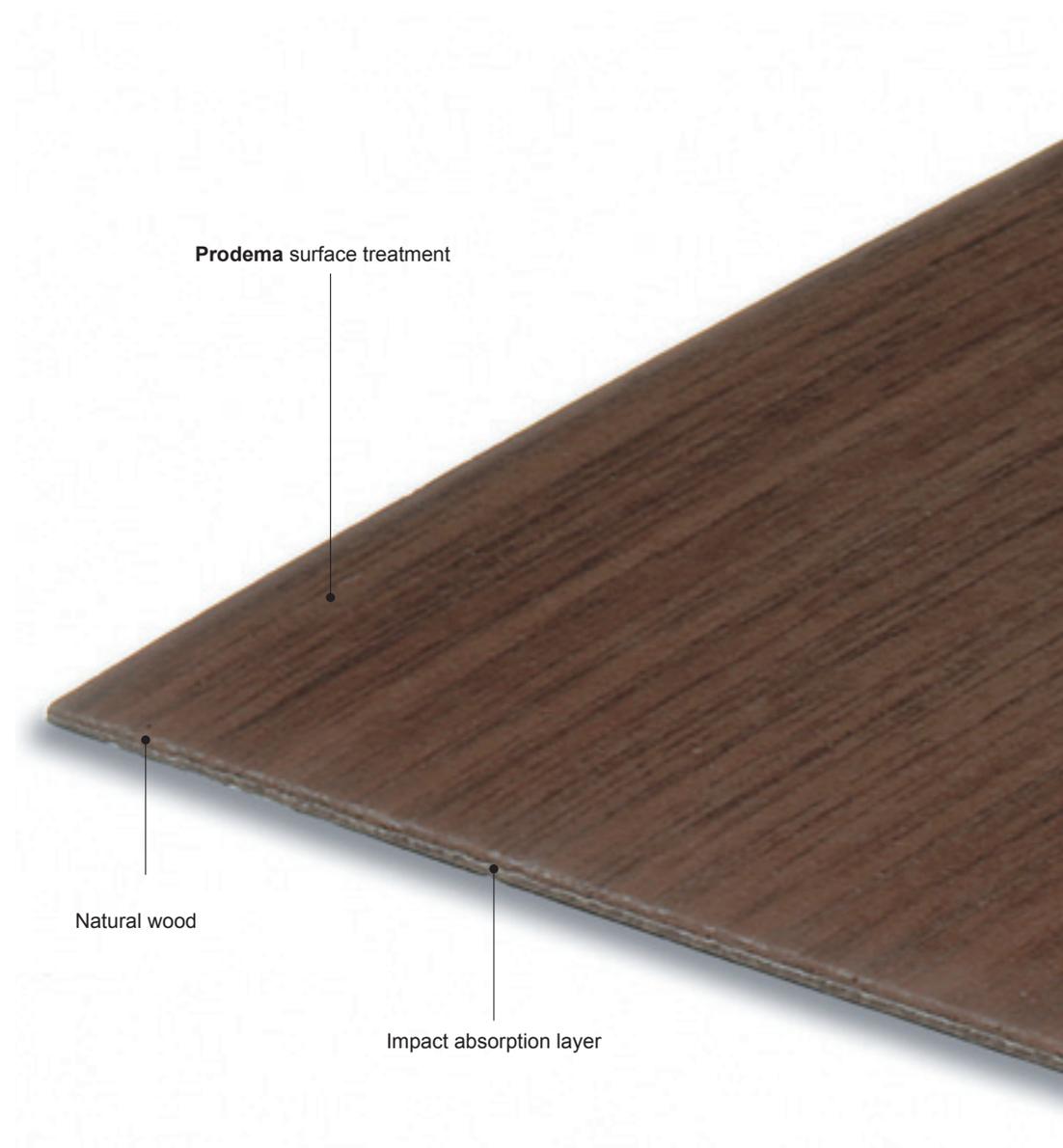


**La General de Granada**  
Spain

## 1.7 *Laminium*

### 1.7.1 Composition

Highly flexible natural wood veneer, specially designed to cover raised technical floors, doors, etc.



## 1.7.2 Technical Characteristics

 <b>TECHNICAL DATA SHEET</b>		Doc.: FTLAMINIUM Rev.: 004 – Sept 2009 Page: 1/1		
MATERIAL:		THICKNESS:		SURFACE FINISH:
LAMINIUM		1 mm		SUPER MATT
TESTS	RESULTS	PROPERTY OR ATTRIBUTE	UNIT OF MESURE	STANDARD
<b>1. INSPECTION REQUIREMENTS</b>				
Colour, pattern and surface finish	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.			EN 438-8 Part 5.2.2.3
<b>2. DIMENSIONAL TOLERANCES</b>				
Thickness (t)	± 0,15	t = 1 mm	mm	EN 438-2 Part 5
Length and width	+ 10 / - 0	-----	mm	EN 438-2 Part 6
Edge straightness	1,5	-----	mm/m	EN 438-2 Part 7
Edge squareness	1,5	-----	mm/m	EN 438-2 Part 8
Flatness	120	-----	mm/m	EN 438-2 Part 9
<b>3. GENERAL</b>				
Dimensional stability at elevated temperatures	0,45 0,90	Longitudinal direction Transversal direction	% (max.)	EN 438-2 Part 17
Impact resistance (small diameter ball)	≥ 10	Force Resort	N	EN 438-2 Part 20
Resistance to surface wear	AC4 ≥ 4.000	Initial point (IP)	Revolutions	EN 438-2 Part 11
Resistance to immersion in boiling water	≥ 4	Aspect	Rating Groups 1 and 2 Group 3	EN 438-2 Part 12
Resistance to scratching	≥ 3	Force	Rating	EN 438-2 Part 25
Light fastness (Xenon arc)	≥ 4 < 4 (A)	Contrast	Grey scale rating	EN 438-2 Part 27
Resistance to stain	≥ 5 ≥ 4	Aspect	Groups 1 and 2 Group 3	EN 438-2 Part 26
Resistance to cigarettes burns	≥ 4	Aspect	Rating	EN 438-2 Part 30
Reaction to fire	D-s2,d0 (B)	Euro class	Classification	EN 13.501- 1
Density	≥ 1,10	Density	g/cm³	EN ISO 1.183

(A) Maple, Natural Beech, White Oak

(B) Non FIRE RETARDANT composite panels with wood based substrates

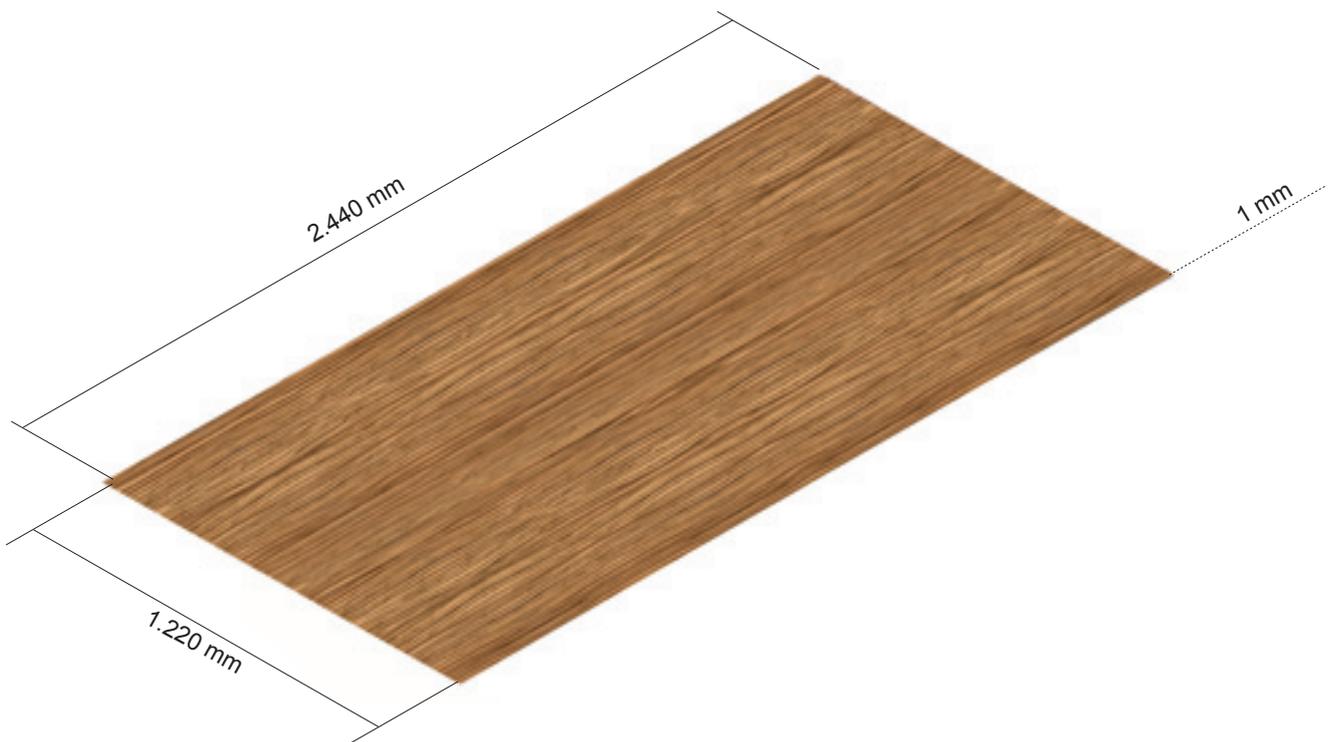
### Laminium Reaction to fire

NON fireproof material

Thickness ≥ 1 mm | Class.: D-s2, d0 (according to EN 13.501-1)

### 1.7.3 Dimensions

Laminium stratified size is 2440 x 1220 x 1 mm.



(For dimensional tolerances see data sheet)

### 1.7.4 Colours

**Prodema** panel veneers are made with natural wood so the tone and graining of the samples is a mere guide. The surface composition of the **Prodema** panels may also vary depending on the application, so there may be differences in tone for the same colour in the different families of panels.

## *Flat cut wood*



## *Rotary cut wood* *Ayous Veneer*

---



Dark Brown



Light brown



Mocca



Black Wood



Honey



Natural A

## *Okume Veneer*

---



Roasted Brown



Almond

Would you like a sample of some of our products?

Simply send an email to:  
[prodema@prodema.com](mailto:prodema@prodema.com)  
and we will get it to you.

[www.prodema.com](http://www.prodema.com)

All **Laminium** finishes are Super Matt (smooth matte).

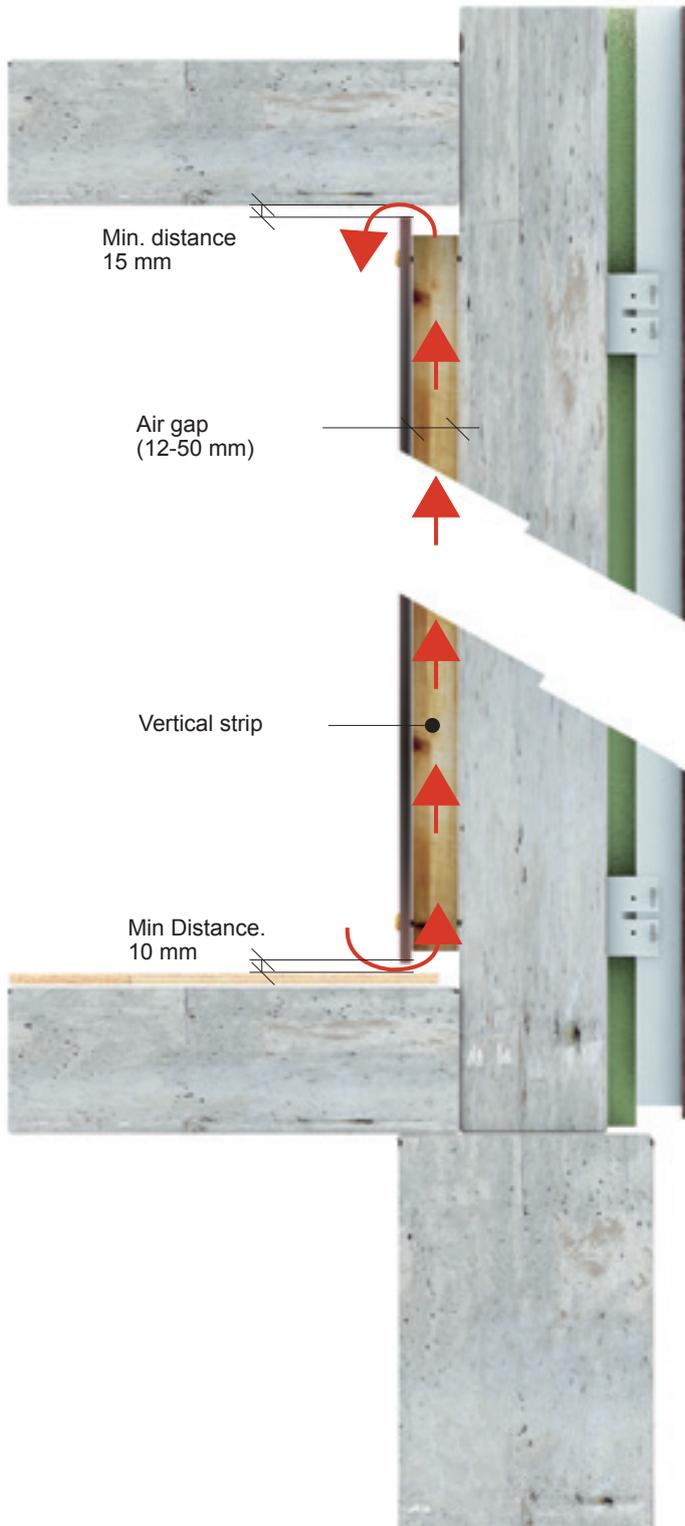
# 2. Mounting Systems

## 2.1 Ventillated facade

When assembling **ProdIN** panels (**Neptuno**, **Proligna** and **Auditorium**) it is essential to use ventilated facade for the optimum performance of such panels is very important that the humidity and temperature differences between the two sides of the panel are minimized. Mounting the panel using a ventilated facade can offer several advantages:

- The ventilated facade generates constant air ventilation through the rear of the panel and prevents accumulation of moisture and the area becoming damp.
- A space is obtained for installations such as electricity sockets.
- Easy installation, removal and good solution for refurbishments.
- Improved sound insulation.



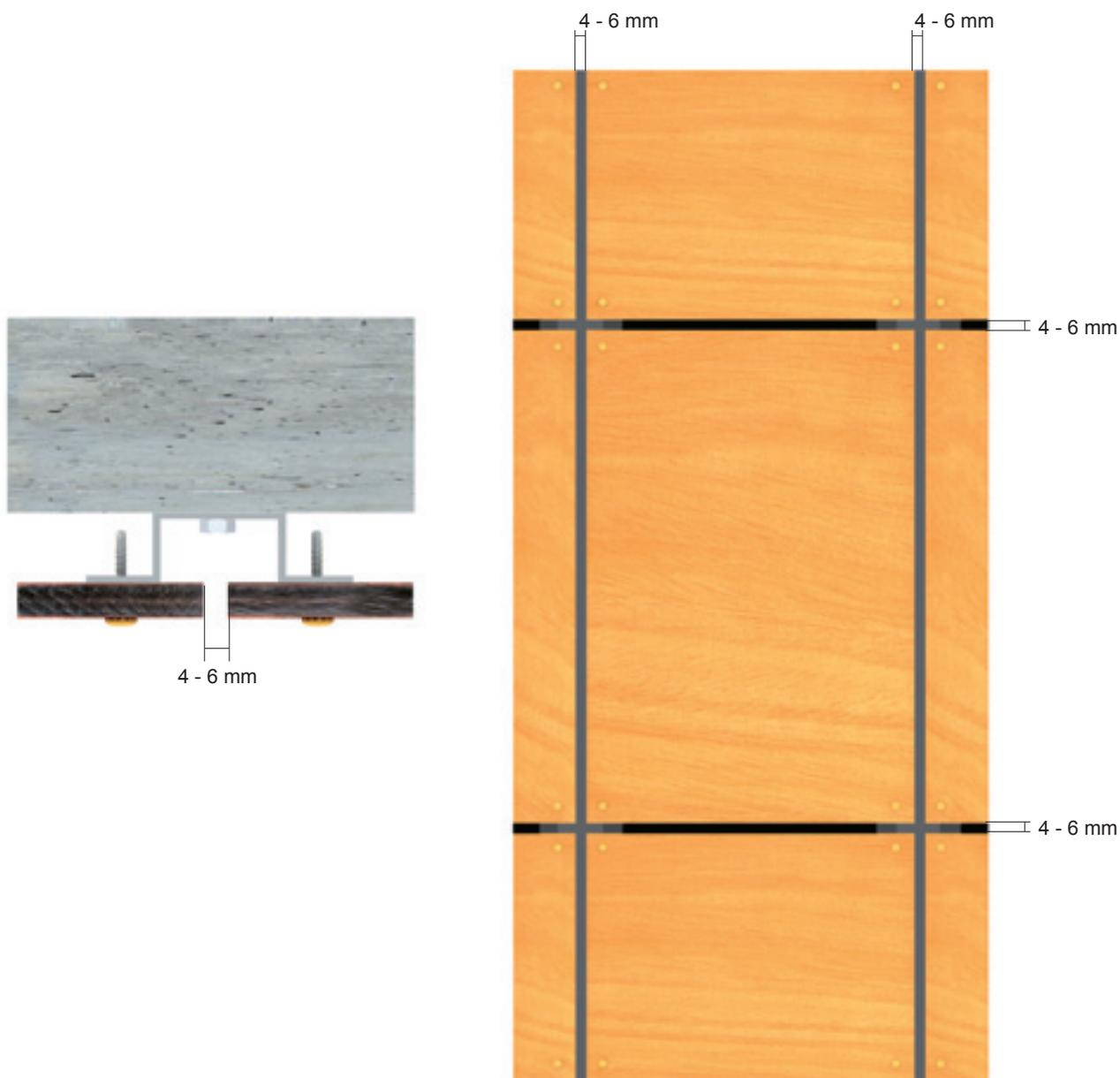


- Leave an opening of min. 10 mm at the bottom and min. 15 mm at the top of the cladding.
- Only vertical battens should be used as they do not interfere with air circulation.
- Leave a gap of between 12 - 50 mm.

## 2.2 Joints and dimensional stability

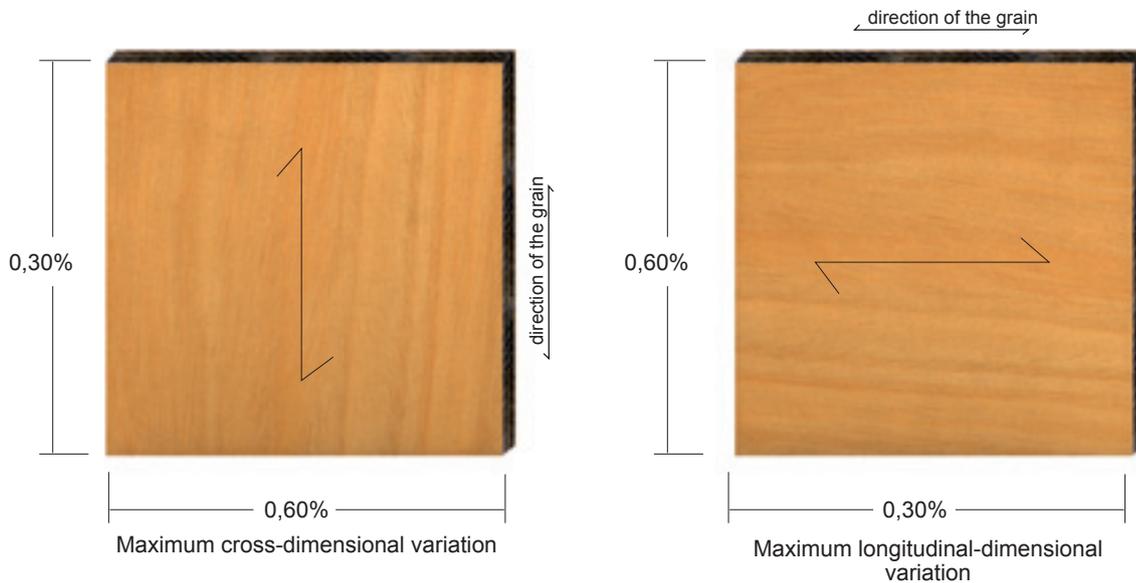
### 2.2.1 Expansion joints:

Keep an expansion joint between the panels of between 4-6 mm. The joint permits the **ProdIN** panels (**Neptuno**, **Proligna** and **Auditorium**) the necessary freedom of movement for expansion and contraction.



### 2.2.2 Dimensional stability:

**ProdIN** Panels (**Neptuno**, **Proligna** and **Auditorium**), due to their natural wood veneer, will suffer small dimensional changes due to changes in environmental temperature and humidity. The maximum dimensional variation in the longitudinal direction for **Neptuno** is 0.30%, and in the transverse direction to the strip 0.60%. These small dimensional changes do not affect the aesthetics or functionality of the strips. For this reason it is very important to bear in mind the expansion joints indicated by **Prodema**.



**Neptuno** is a water-resistant material, resistant to steam and water. However, it is advisable not to submerge the edges permanently or for an extended period in water as areas with a darker colour may appear at the edge of the panel surface.

## 2.3 Substructure

### 2.3.1 Different types of battens and auxiliary elements:

To fix **ProdIN** panels (**Neptuno**, **Proligna** and **Auditorium**), different batten materials can be used:

- Treated wood: Pine, larch, tali, etc.
- Metal: Aluminium and galvanized steel, or occasionally stainless steel.

The choice of metal strips depends on the area on which the panels are to be applied and the required characteristics.

- Aluminium: For wet or moist areas, sea environments and corrosive atmospheres. In highly corrosive environments, an anodizing layer is usually applied to increase resistance.
- Galvanized steel: For wet or moist areas, non-corrosive atmospheres and non-sea environments. This material has better mechanical properties than aluminium.

The most common strips for **ProdIN** claddings are:

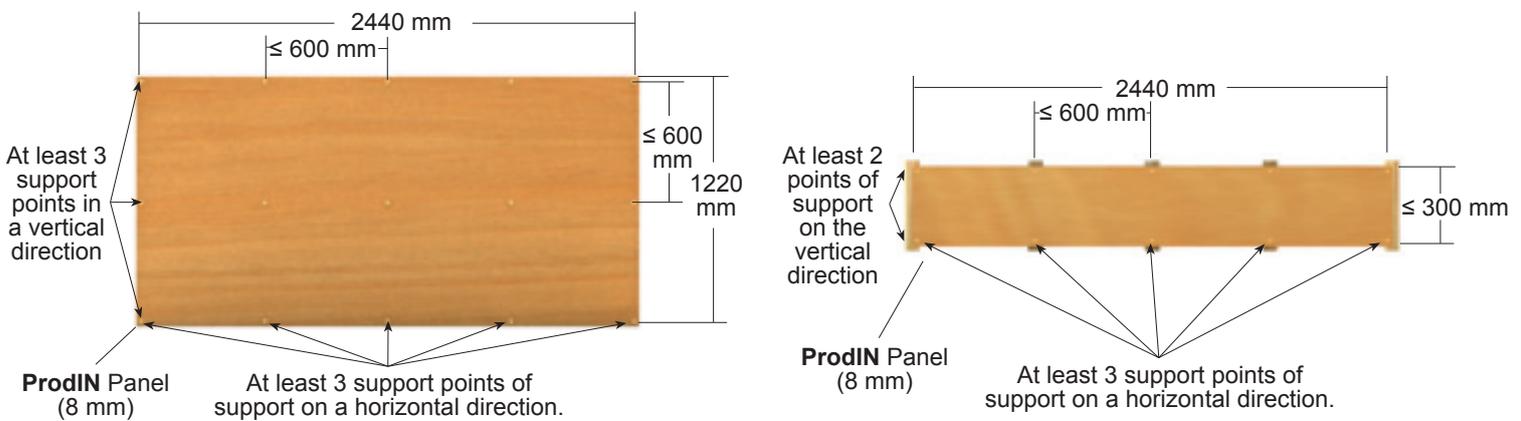
- Wood: Square or rectangular profile.
- Aluminium: Wide variety of forms (see chapter 4 -Accessories-).
- Galvanized steel: “U”, “Z”, “L”, omega and tube profiles (see chapter 4 -Accessories-).

### 2.3.2 Distance between vertical posts:

**Prodema** recommended that each panel is supported on the entire surface of the battens or vertical posts for all its mounting systems.

**ProdIN** panels (**Neptuno**, **Proligna** and **Auditorium**), must rest on at least three points, both vertically and horizontally, always respecting the distances shown on this page.

The distance between the axes of the vertical posts depends on the thickness and fixing system:



As an exception, for pieces between 150 and 300 mm, two points of support in the same direction are sufficient.

- Column for exposed fixing with screws or rivets:
- Table for concealed fixing with hanging profiles:

THICKNESS (mm)	DISTANCE BETWEEN VERTICAL POSTS (mm)
3*	≤ 300
6*	≤ 400
8, 10	≤ 600
12	≤ 800
14, 16, 18, 20, 22	≤ 1000

\*Only for special applications.  
Contact **Prodema**.

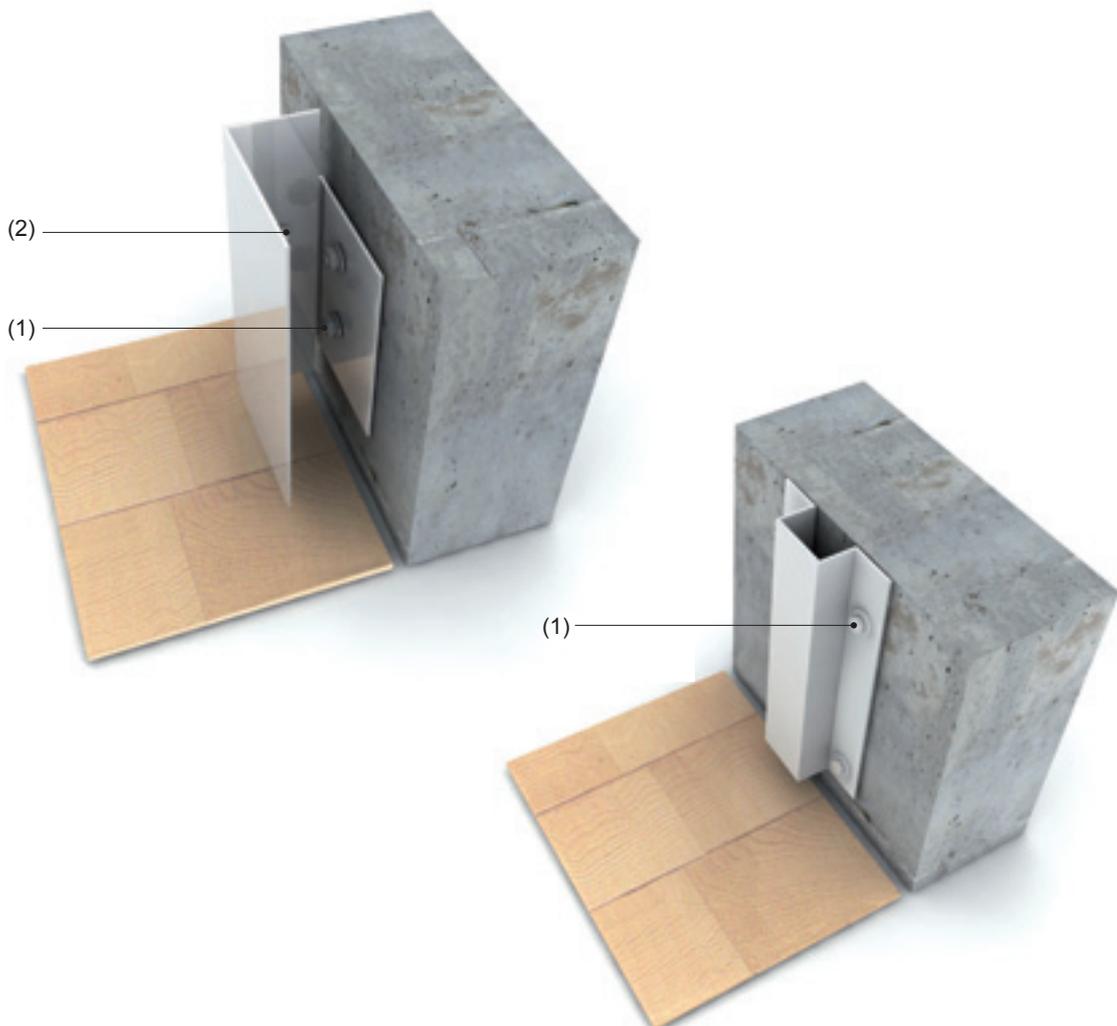
For concealed fixing with adhesive, the distance should be reduced as in the following table.

- Table for concealed fixing with adhesives:

THICKNESS (mm)	DISTANCE BETWEEN VERTICAL POSTS (mm)
8-12	≤ 400
14-22	≤ 600

### 2.3.3 Anchoring to the facade:

The battens must be fixed to the facade using appropriate fixing elements in keeping with the material itself and the battens.



1) The angles or battens are fixed with screws and the corresponding rawl plugs (made from steel or nylon) to the facade.

2) The battens fixed at the corners with bichromate or stainless steel self-drilling screws.

For more information on accessories, see chapter 4.

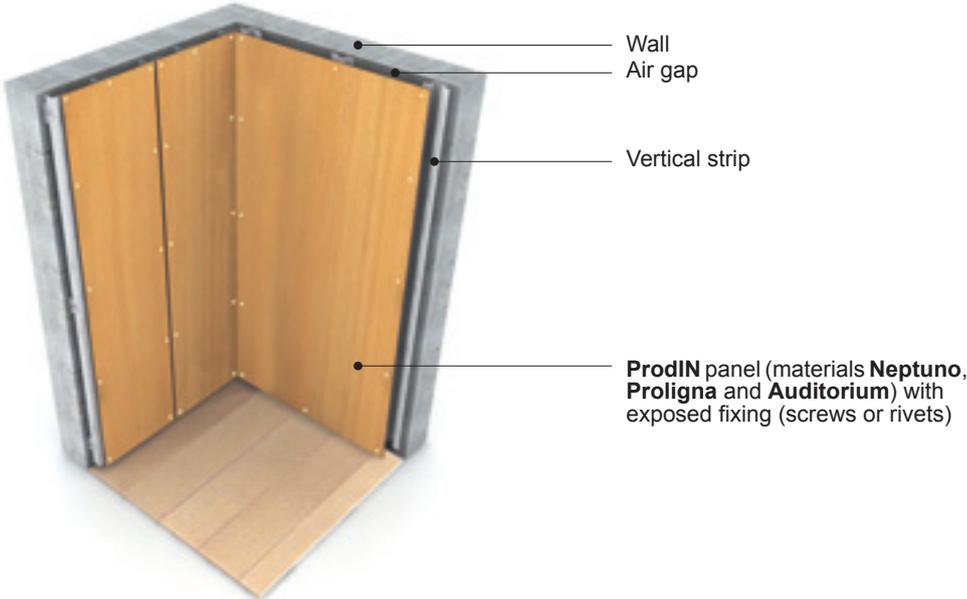
## 2.4 Types of fixing wall cladding with **ProdIN (Neptuno, Proligna and Auditorium)** materials

**Prodema, SA has two types of facade fixing systems:**

- Fixing with screws or rivets
- Concealed fixing. The concealed fixing may be:
  - With hanging profiles
  - Glued

### 2.4.1 Exposed fitting:

This type of installation is characterized by fixing of the **ProdIN panels (Neptuno, Proligna and Auditorium)** using exposed screws or rivets. These screws and rivets \* are made of metal and can be ordered in the 8 different colours offered by **Prodema**.



#### • Distances between the screws or rivets on a single panel \*

The distance between the screws or rivets \* both horizontally and vertically in a row, depends on the thickness of the panel:

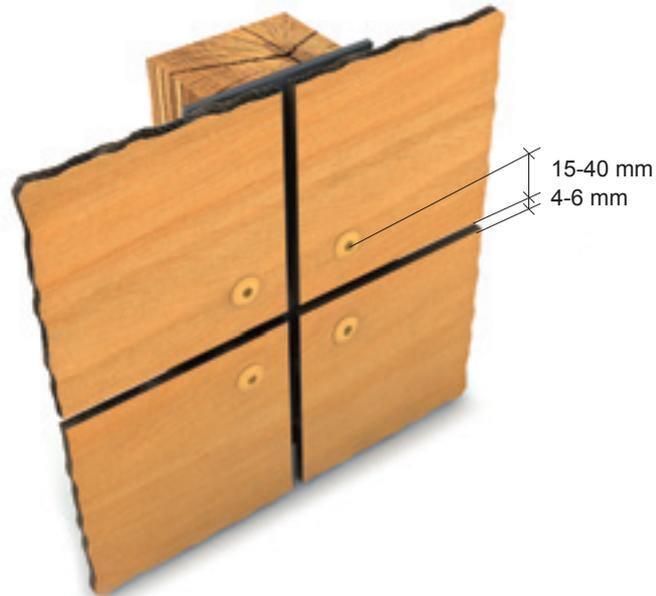
THICKNESS (mm)	DISTANCE BETWEEN VERTICAL POSTS (mm)
3*	≤ 300
6*	≤ 400
8,10	≤ 600
12	≤ 800
14,16,18,20, 22	≤ 1000

\* Only for special applications. Contact **Prodema**.

For pre-drilled diameters see chapter 3.3.2.  
 Never use countersunk screws for fixing the **ProdIN** materials.

\* Rivets used only with metal substructures, not wood substructure.

• Distances of screws and rivets \* to the corner of the panel



Screws and rivets \* on the corner of the panel should be between 15 and 40 mm from the edge of the panel.

• Screws or Rivets recommendations for \* fixing of panels.

- For wooden battens:

Screw: SFS-TW-S-D12-(4.8 x 38) (lacquered or unlacquered)  
For more screw information see chapter 4.3.1.



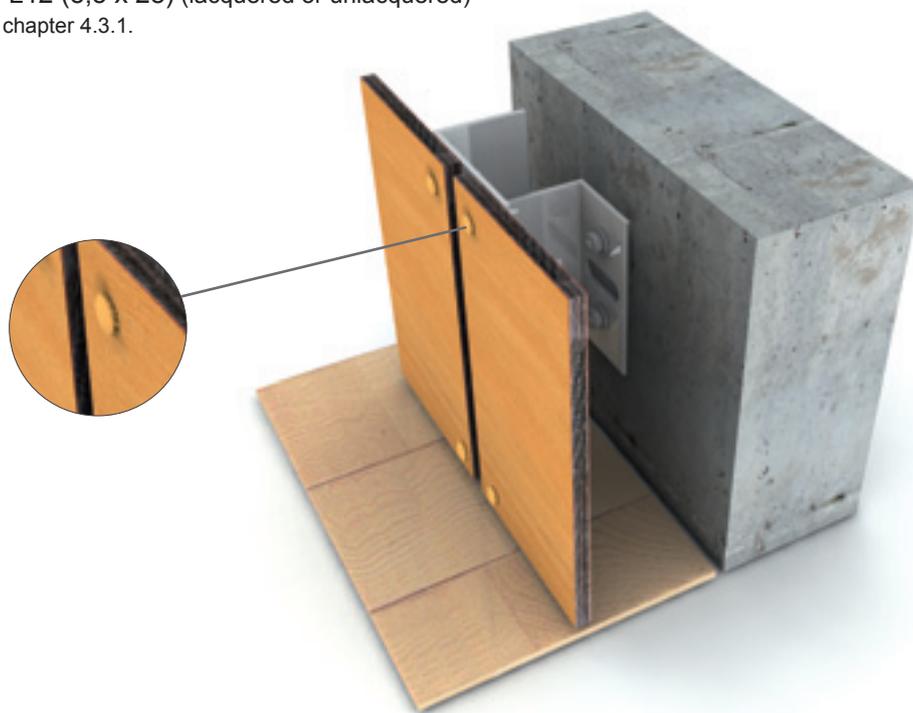
\* Rivets used only with metal substructures, not wood substructure.

- For metal battens:

· With Screws:

Screw: SFS-SX3-L12 (5,5 x 28) (lacquered or unlacquered)

For more screw information see chapter 4.3.1.



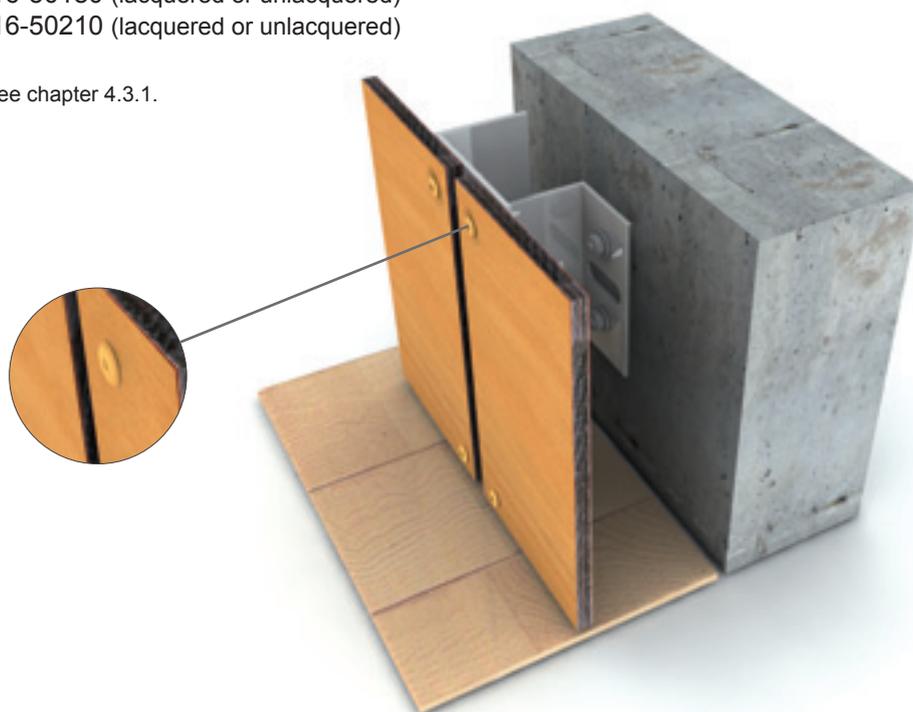
· With rivet \*:

Rivets \*: SFS- AP16-50160 (lacquered or unlacquered)

SFS- AP16-50180 (lacquered or unlacquered)

SFS- AP16-50210 (lacquered or unlacquered)

For more information on rivets see chapter 4.3.1.



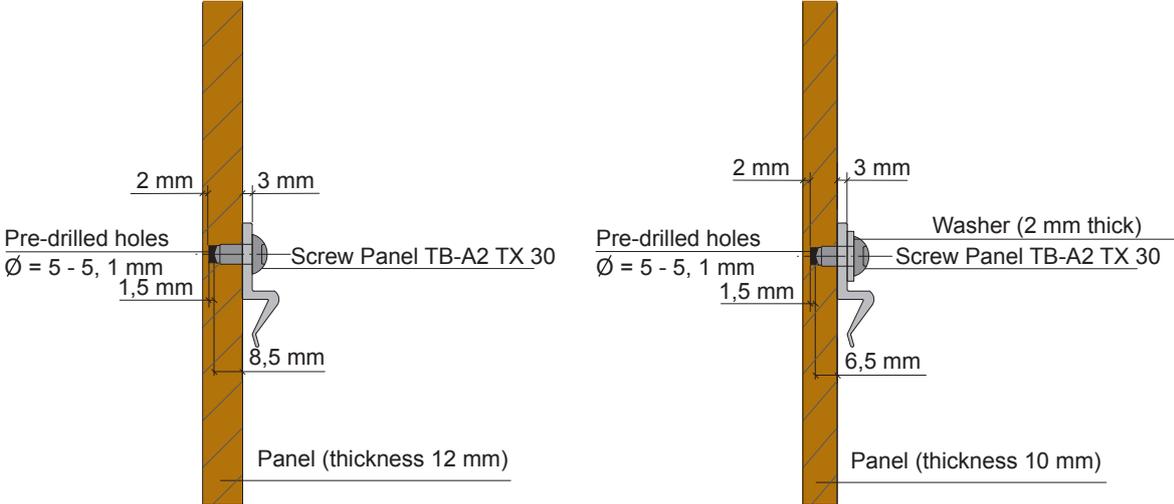
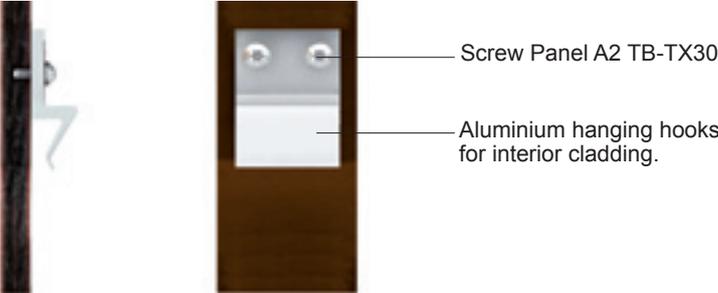
\* Rivets used only with metal substructures, not wood substructure.



The guide profiles are horizontal posts placed on the top of the primary aluminium substructure. To fix the guide profile to the sub-structure, self-threading screws are used.

The hanging hooks are aluminium pieces that are fixed to the back of the board, using Panel TB-A2 TX 30 Screws.

As the **ProdIN** material is very hard material a blind perforation will have to be made on the panel beforehand in order to screw in the screw. The pre-drilled hole should have a diameter of 5 - 5.1 mm and 1.5 mm deeper than the screw after adjustment. The distances between these screws must be accurately measured and they must be at a certain height from the edge of the panel.

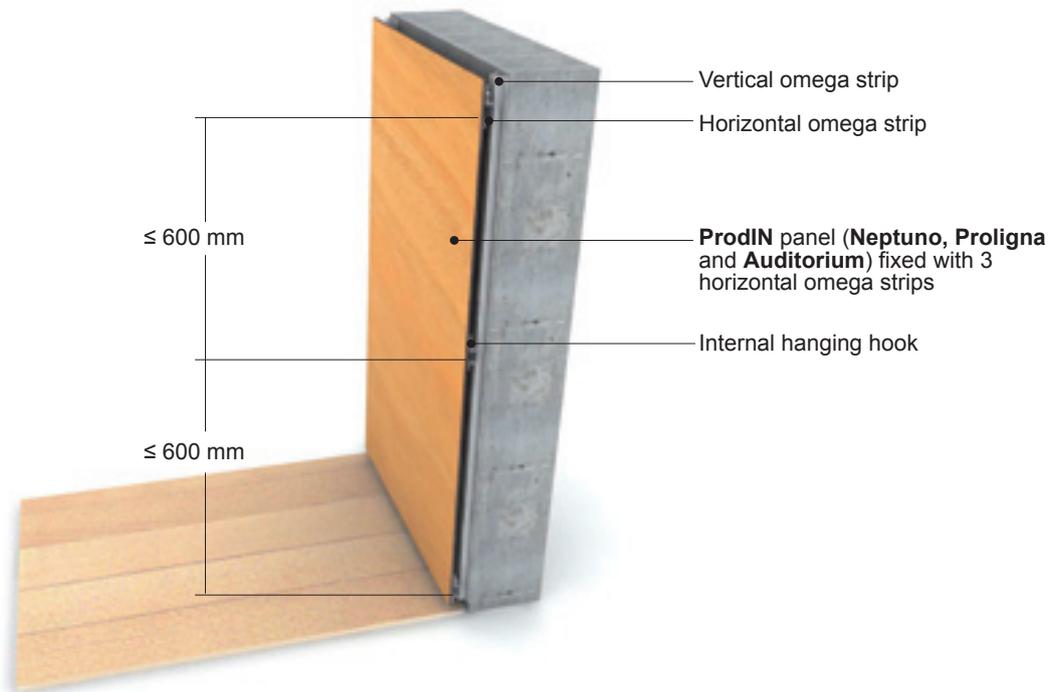


With 10 mm thick panels 2 mm thick washers must be used.

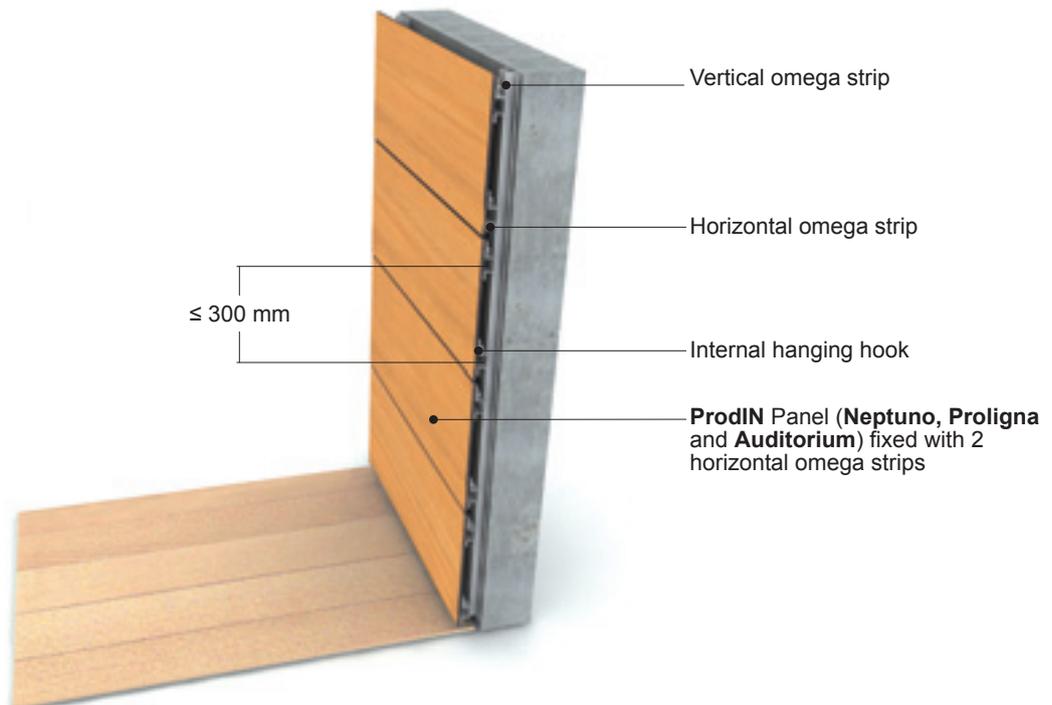
For more information about accessories see chapter 4.

• **Mounting horizontal battens:**

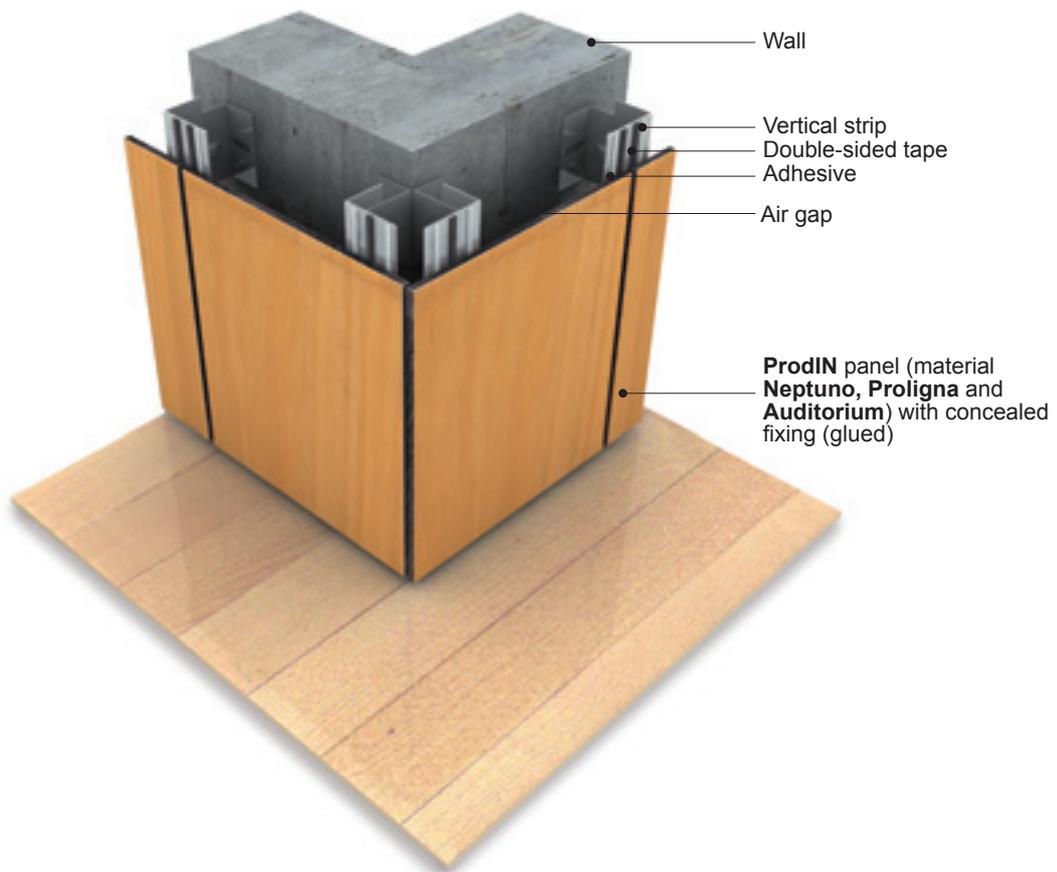
Aluminium guiding battens are placed horizontally on the aluminium substructure at a distance from the vertical axis  $\leq 600$  mm, provided that there are least three aluminium guide strips per panel unit.



As an exception, for pieces between 150 mm and 400 mm two aluminium guide strips are sufficient. The distance between the horizontal battens on the same panel are always  $\leq 300$  mm.



### 2.4.3 Concealed fixing with adhesive:



The minimum thickness to be used for the adhesive system is 8 mm.

Fixing using glue is a delicate process which requiring the correct procedure and to be strictly followed, consistent with the adhesive manufacturer's instructions.

• **Gluing procedure instructions:**

1.) Carefully sand down the **ProdIN** panel (**Neptuno Proligna** and **Auditorium**) in the area to be glued before doing so. This operation should be carried out using coarse grit sandpaper. The panel should only be sanded down in the area where the adhesive is to be applied, coinciding with the position of the battens.

Depth of sanding for the different materials:

-**Neptuno** and **Auditorium**: sand down to the layer of wood, without passing through it.

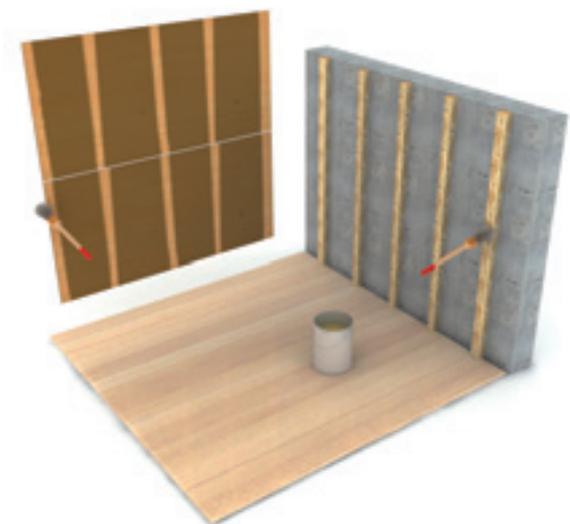
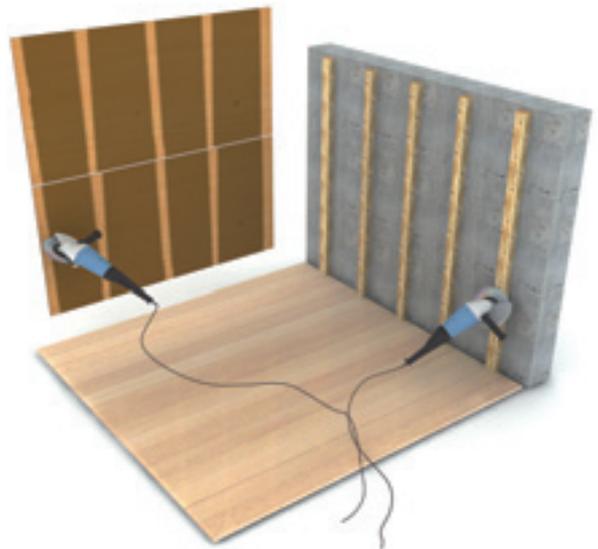
-**Proligna**: sand the surface removing surface shine.

2.) Clean the sanded areas of the panel with a brush, air or special liquid supplied by the adhesive manufacturer.

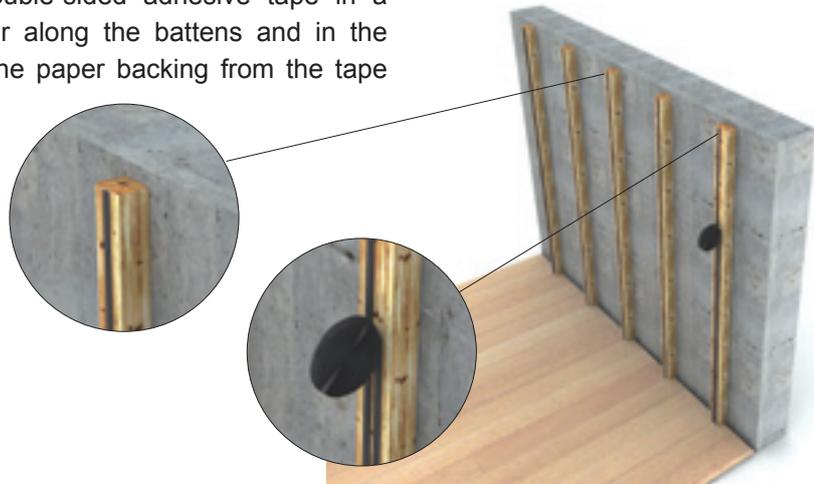
3.) Also sand the battens on the surface where the panel rests. Wooden and aluminium battens must be sanded ensuring that the batten is perfectly clean and dust-free and the gluing surface completely dry. Steel battens must not be sanded to avoid damaging the protective oxide; these should be degreased with a liquid.

4.) Stir the primer well before use and apply on the clean, dry, sanded, areas of the panels and the battens, taking care not to prime any more area than the area to be glued within the next 6 hours. For each material (wood battens, metal battens, panel...) the specific primer indicated by the adhesive manufacturer should be used.

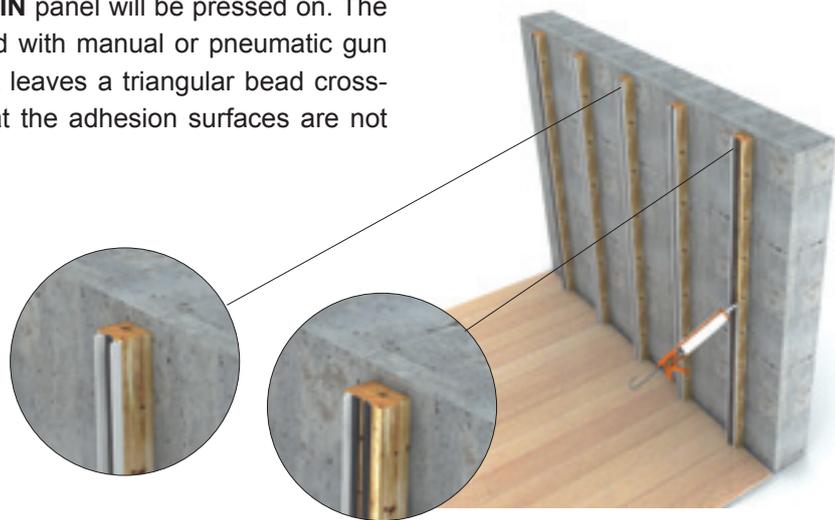
5.) Follow the instructions for the minimum and maximum drying time in accordance with the material to be primed. After the drying procedure continue with the gluing procedure.



6.) Stick two strips of double-sided adhesive tape in a continuous parallel manner along the battens and in the centre, without removing the paper backing from the tape surface yet.



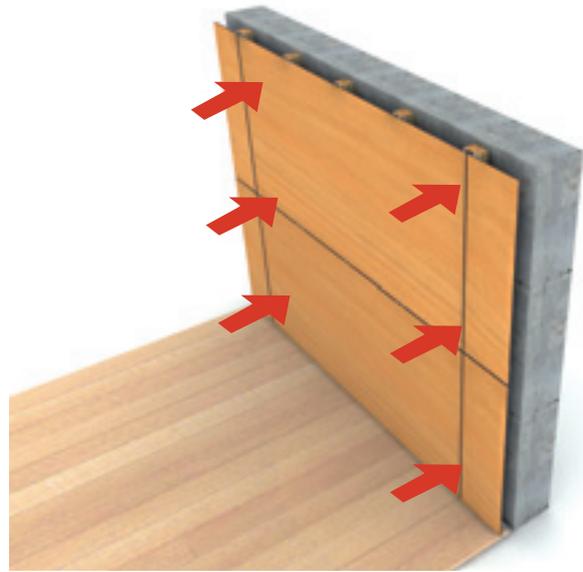
7.) Apply the single-component adhesive bead on the battens, in the area where the **ProdIN** panel will be pressed on. The adhesive should be applied with manual or pneumatic gun using a special nozzle that leaves a triangular bead cross-section. Always ensure that the adhesion surfaces are not wet or dirty.



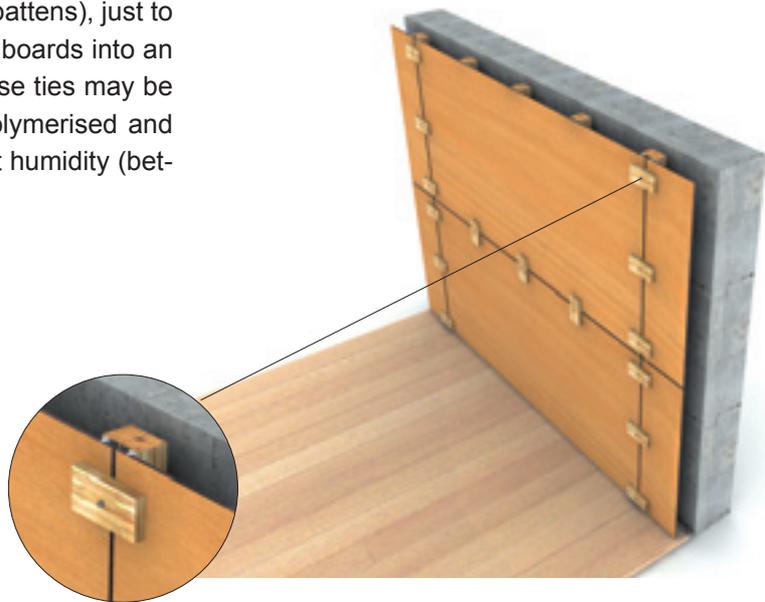
8.) Remove the protective backing from the adhesive tape.



9.) 10 minutes after applying the adhesive, carefully place the panels, taking care not to press too hard as this could cause the adhesive bead to spread too much, leaving an uneven facade. With the help of double-sided adhesive tape the panels will be held tight in their three dimensions in the required place on the batten.



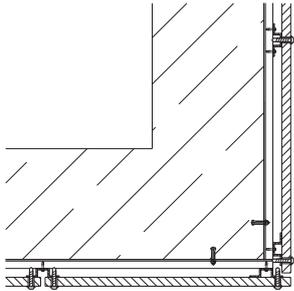
10.) The boards should be fixed with the aid of several ties (fastened with screws to the battens), just to hold them together; do not force the boards into an incorrect position on the batten. These ties may be removed when the adhesive has polymerised and how long will depend on the ambient humidity (between 17 and 24 hours).



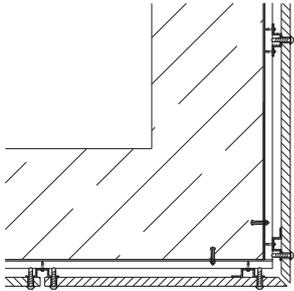
This is a brief and general description of the **Prodema** gluing procedure which does not replace the full instructions from the adhesive manufacturer of adhesive, explaining each particular case.

## 2.5 Corner solutions

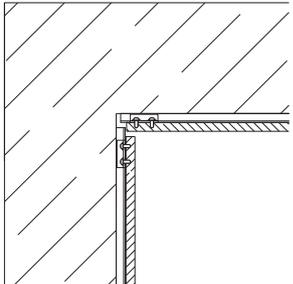
**ProdIN (Neptuno, Proligna and Auditorium)** materials can be processed on site to create all types of finishes typically used with wood, making them quick and easy to mount on any surface.



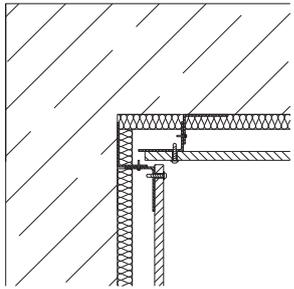
Overlapped screwed



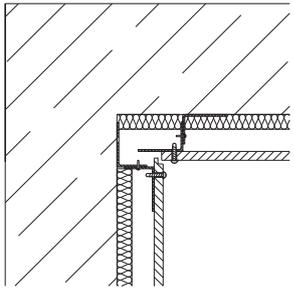
Screwed mitre



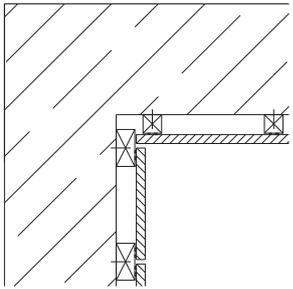
Overlay with concealed profiles



Screwed overlay

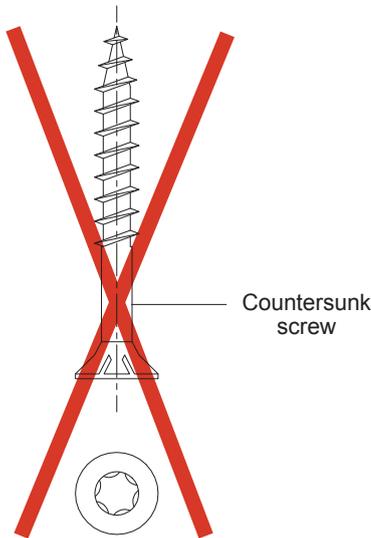
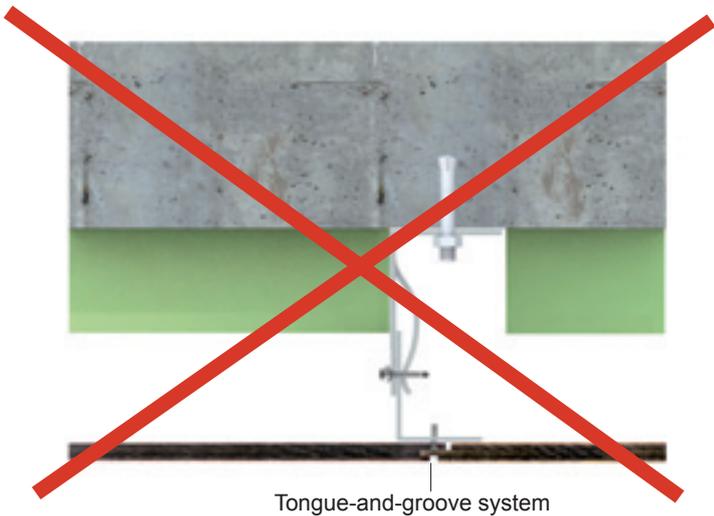


Screwed pilaster



Adhesive overlay

**ProdIN (Neptuno, Proligna and Auditorium)** should not be fitted with tongue and groove systems. In addition, no **Prodema** material should be fixed using countersunk screws.



## 2.6 Fixing types for **ProdIN** ceiling cladding (**Neptuno**, **Proligna** and **Auditorium**)

**Prodema** recommends ceilings only to be fitted with panel thicknesses  $\geq 12$  mm and with exposed fixing (screws or rivets).

### 2.6.1 Rectangular arrangement (1200 x 600 x 14 mm):



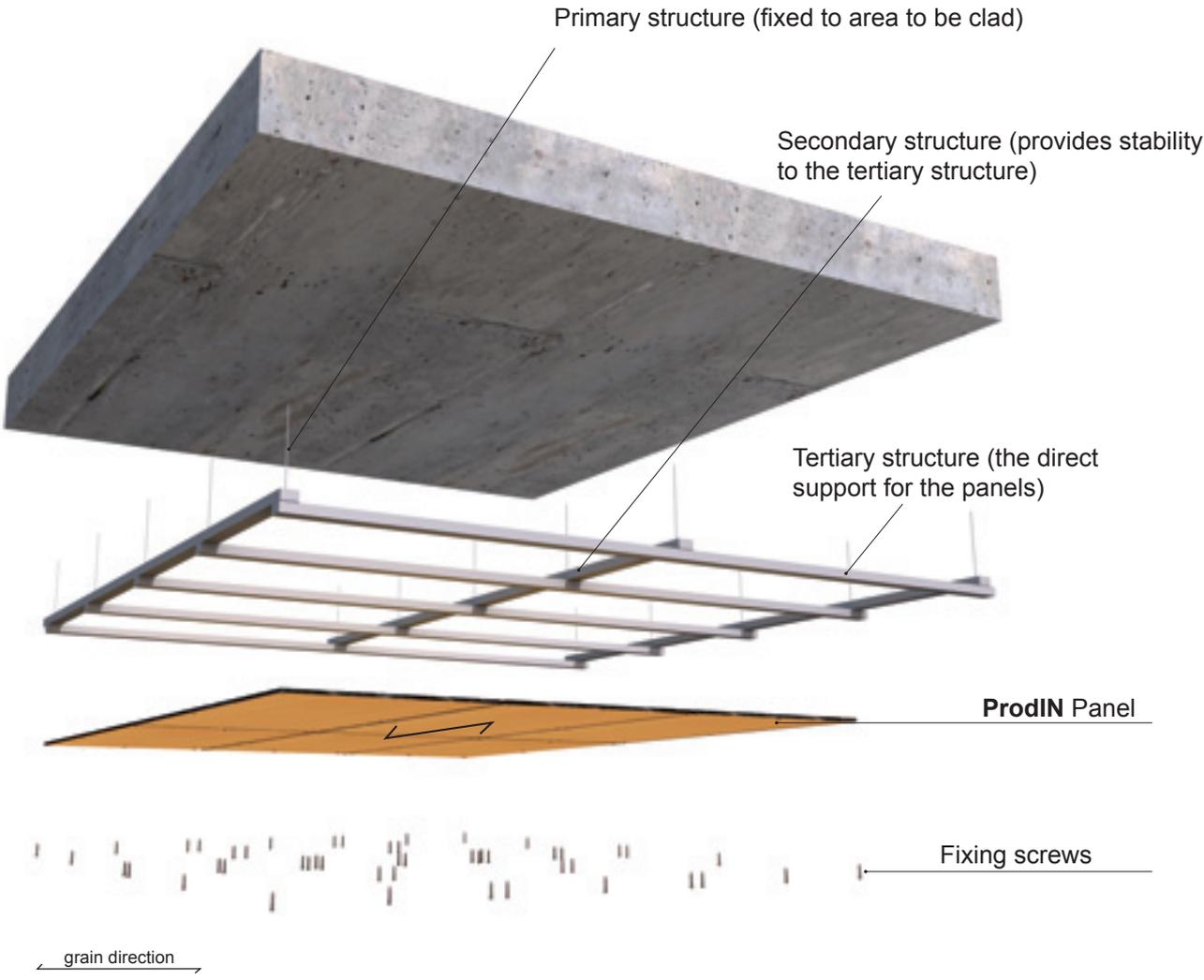
Grain direction →

### 2.6.2 Square arrangement (600 x 600 x 14 mm):



Grain direction →

Breakdown in layers:



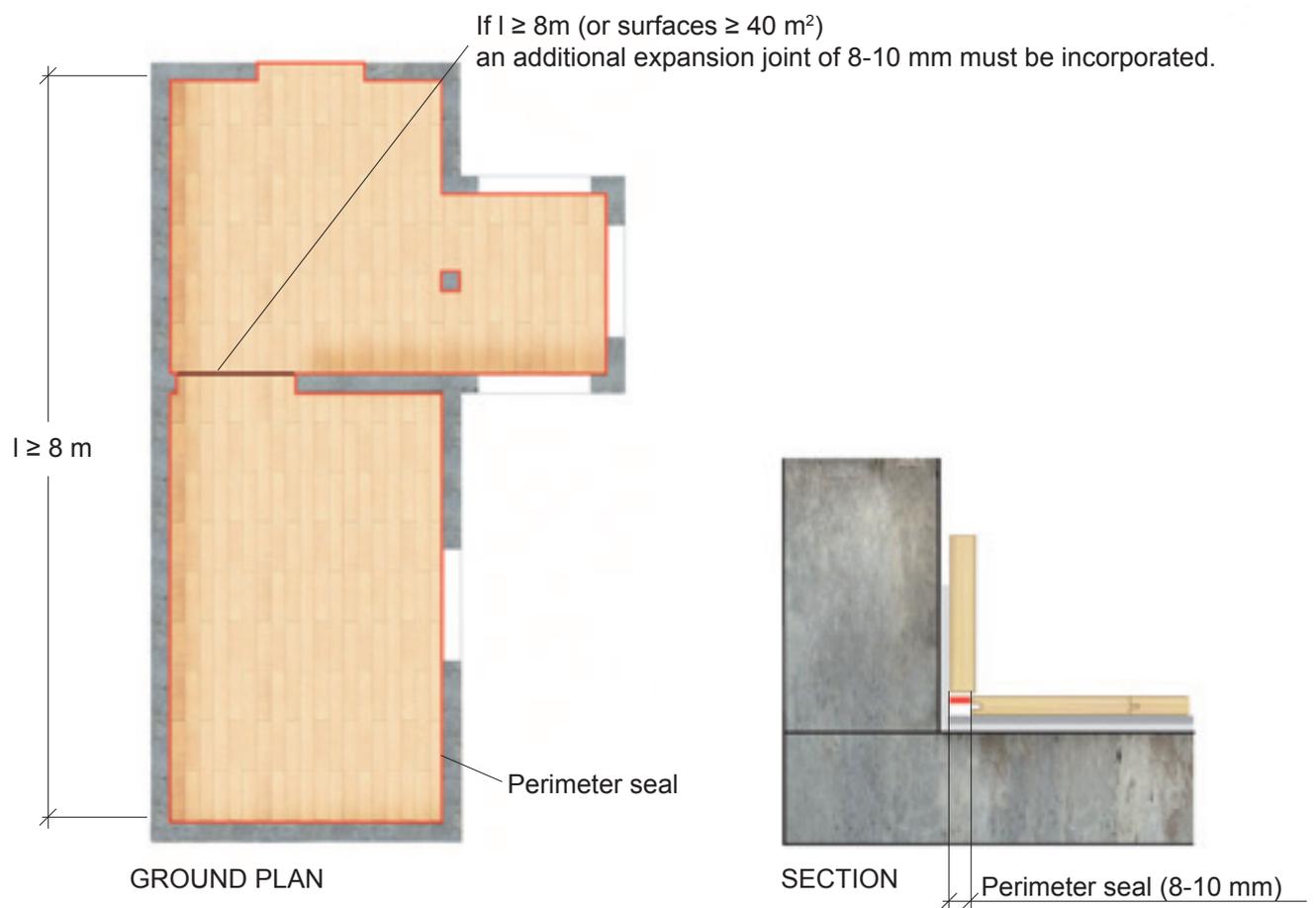
The usual arrangements for ceilings is 1200 x 1200 mm, 1200 x 600 mm and 600 x 600 mm for which at least 8 screws (or bolts) are required to hold each piece of the roof.

Each piece must be supported throughout its length on 3 battens placed perpendicular to the direction of the grain of the panel.

## 2.7 Types of fixing for *Supra*

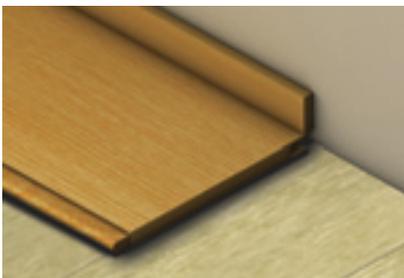
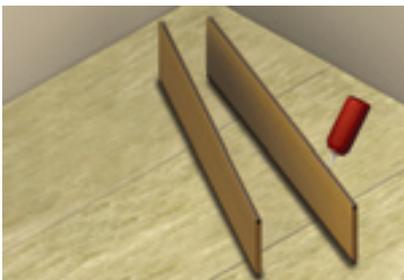
**Supra** cladding can be fitted in three different ways and the base must meet certain minimum requirements before fitting the material:

- be level / good flatness.
- must be solid and consistent, without warping at a later stage.
- be clean.
- be dry.
- have a moisture content below 2.5%.



**Supra** floors must always be installed with a perimeter seal of 8 to 10 mm on the edges of the building and on the walls or other fixed obstacles in the construction, thus enabling dilatation and contraction as a consequence of changes in temperature and humidity of the material.

It is also necessary to consider expansion seals for lengths of more than 8 meters and / or in areas larger than 40 m<sup>2</sup>.



## Floating Parquet

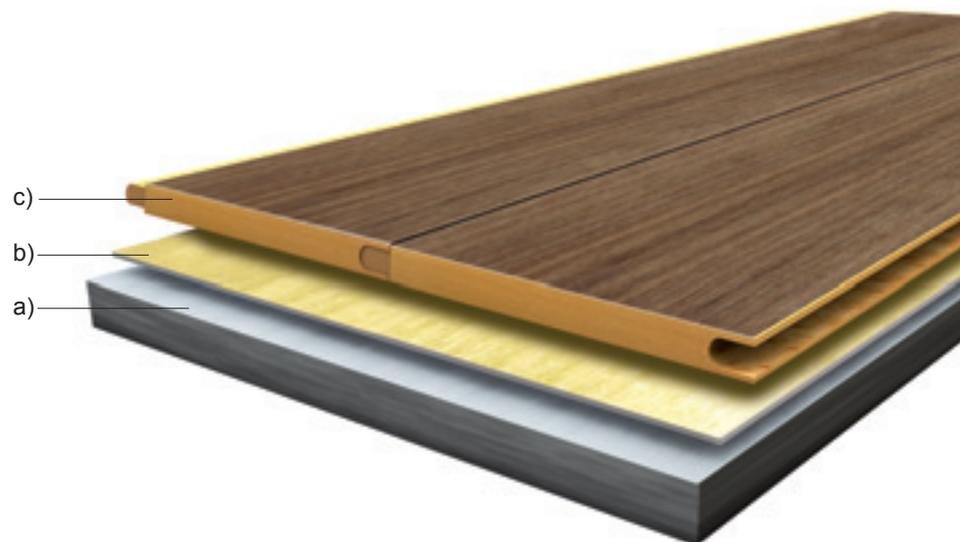
This system must be used provided that the slenderness of the piece (length / width) is greater than five.

Spread a layer of plastic material (e.g. insulation material in chapter 4.4.1 and 4.4.2) on the existing flooring. This layer is to create a barrier against moisture that may arise from underfloor and should be placed transversely to the flooring. Place the first row with groove-side towards the wall ensuring it is parallel to the wall in question. For good adhesion between the pieces, we recommend gluing the groove side with a continuous bead of adhesive. It is also advisable to place distance spacer against the walls, columns, pipes, etc. found on the flooring, in order to ensure an expansion gap 10 mm.

In areas of more than 8-10 m long, we recommend installing at least an expansion joint of 8-10 mm.

Enlargement joints for the consecutive rows should be located at approximately 50 cm from each other.

After drying the glue the wedges are removed and the baseboard placed to conceal the expansion joint created.



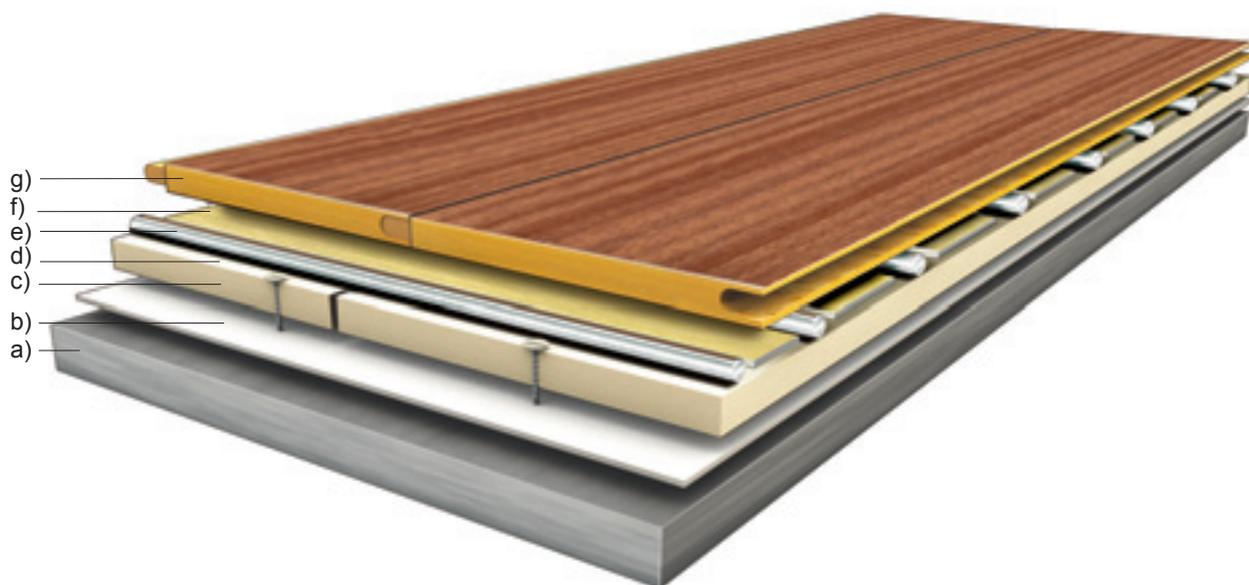
- a) Existing framework/floor structure
- b) Layer of PVC / polyethylene (moisture and acoustic barrier)
- c) **Supra** tongue and grooved boards and glued on the tongue-groove

## Gluing

The gluing system is used when the slenderness of the piece is equal to or less than 5.

For this system it is imperative that the floorwork does not contain any moisture.

If the system has to be used stuck onto a base where water is a component, for example a concrete floor, an underlay must be created using a waterproof MDF base, placed on a layer of PVC / polyethylene. These waterproof boards must be anchored to the floor using screws with a seal perimeter of 10 mm between them. The MDF boards must be primed and once dry continuous beads of SikaBond- T52FC, at a distance of 30 cm apart and transversely to the floor must be spread out. Finally the boards are applied in the same way as the floating parquet.



- a) Existing framework/floor structure
- b) Layer of PVC / polyethylene (moisture barrier)
- c) Waterproof MDF board (16mm) with 10mm seal between them bolted to the groundwork
- d) MB Sika Primer (only In the case of moisture and to improve adhesion qualities)
- e) SikaBond adhesive T52FC
- f) Acoustic underlay
- g) **Supra** tongued and grooved boards and glued on the tongue and groove joint

## Underfloor heating

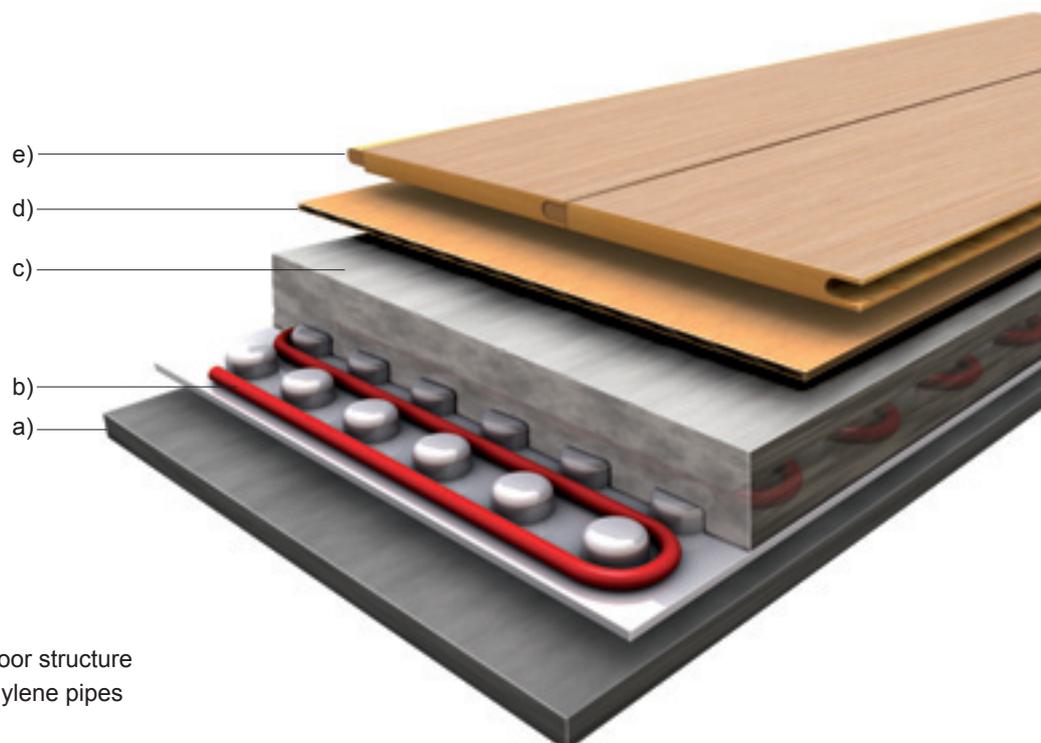
To fit **Supra** on underfloor heated areas, various conditions relating to moisture, the start up of the heating circuit and its subsequent operation must be complied.

Perfect flatness must be guaranteed and the floor must be sealed from possible humidity from the underfloor. This system is used corrugated cardboard (smooth side up) instead of polyethylene underlay to protect the wood from possible floor moisture, since the thermal conductivity of corrugated cardboard is better than polyethylene.

Also make sure before installation of the wooden strips that the underfloor water circuit has no leaks that could wet the wood once assembled. This factor can be checked by putting the boiler at the maximum temperature and pressure, always following the manufacturer's instructions.

Floor moisture during a 2-week consecutive period must be less than 2% in order to mount the wooden strips. To do so the heating should be left to run 75% of its normal operation and the humidity of the floor should be measured. To place the panels, the heating must have been off for 2 days before installation.

Once the **Supra** assembly is finished, the floor temperature should not exceed 25 °C and there should be no abrupt changes in temperature and humidity.



- a) Existing framework/floor structure
- b) Lattice-linked polyethylene pipes
- c) Layer of mortar
- d) Corrugated cardboard
- e) **Supra** tongued and grooved boards and glued on the tongue and groove joint

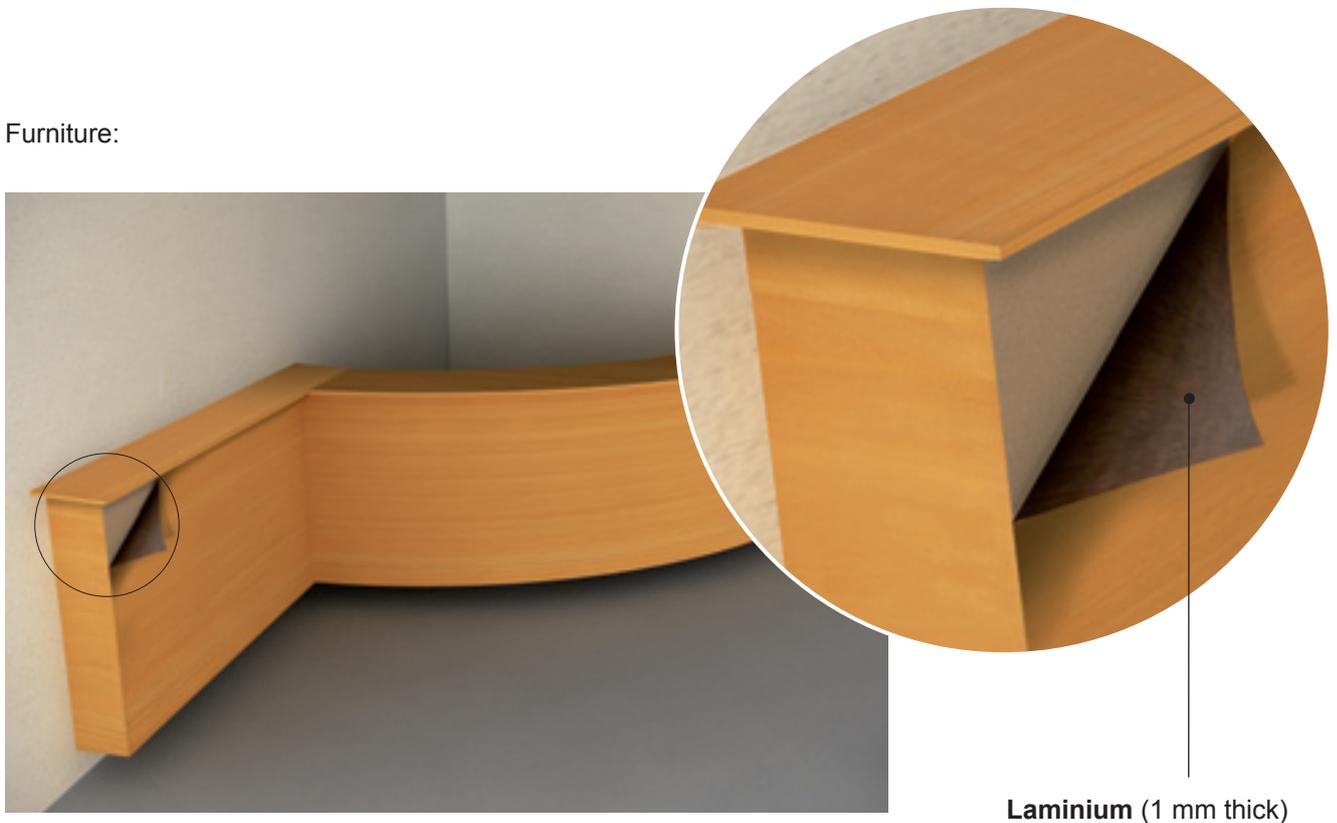
## 2.8 Fixing types for *Laminium*

**Laminium** is the only **Prodema** product that can be applied directly onto another surface without the need to leave an air gap on the back of the laminate.

It is designed to be machined in a workshop or carpenters, never directly on-site. All the surfaces should be stuck with white glue on any wood support (plywood, DM, etc. or wooden battens at a maximum distance of 150 mm).

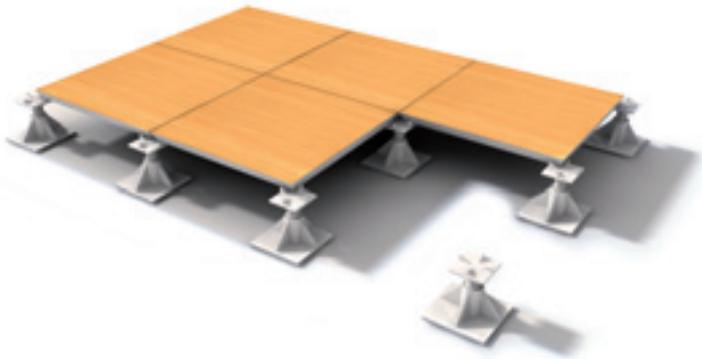
The following image shows some possible applications:

Furniture:

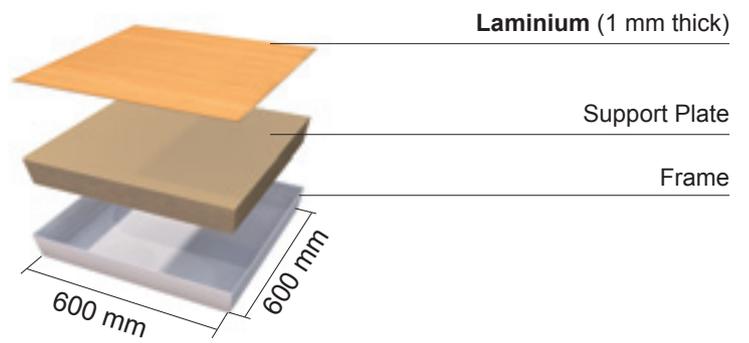


**Laminium** (1 mm thick)

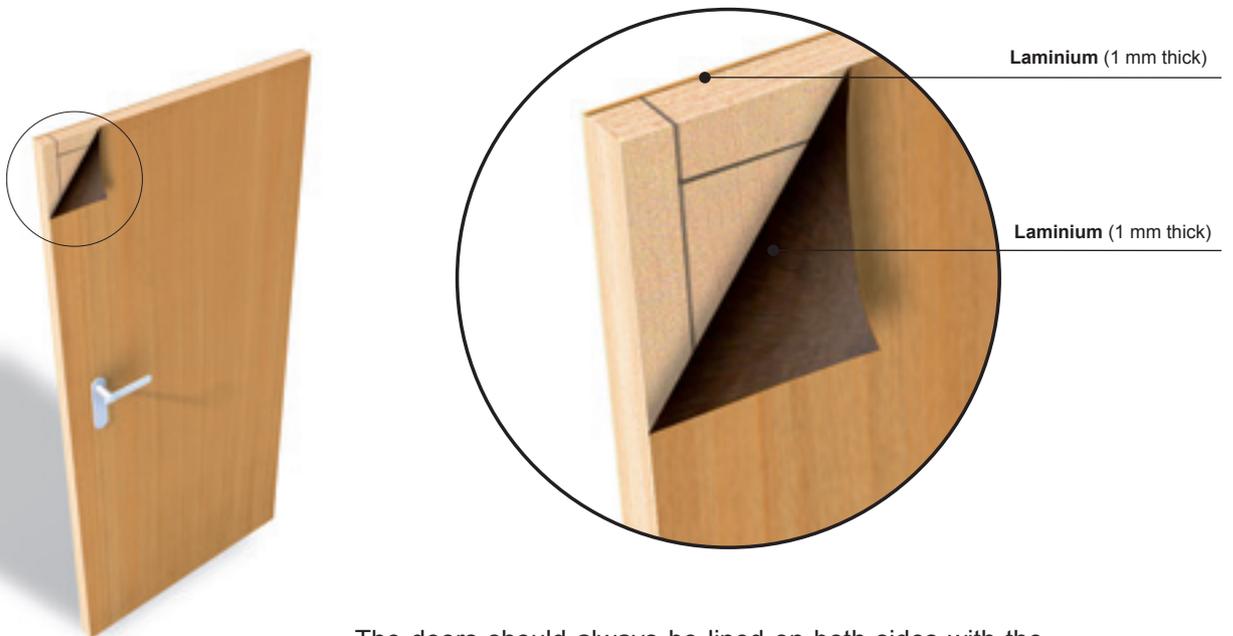
Raised floor:



Tile composition:



Door cladding:



The doors should always be lined on both sides with the same wood and in the same direction of the **Laminium** grain.

# 3. Product care and handling

## 3.1 Transport

To transport the **ProdIN** cladding panels by **Prodema** stable, smooth pallets with the same dimensions as the panel should be used.

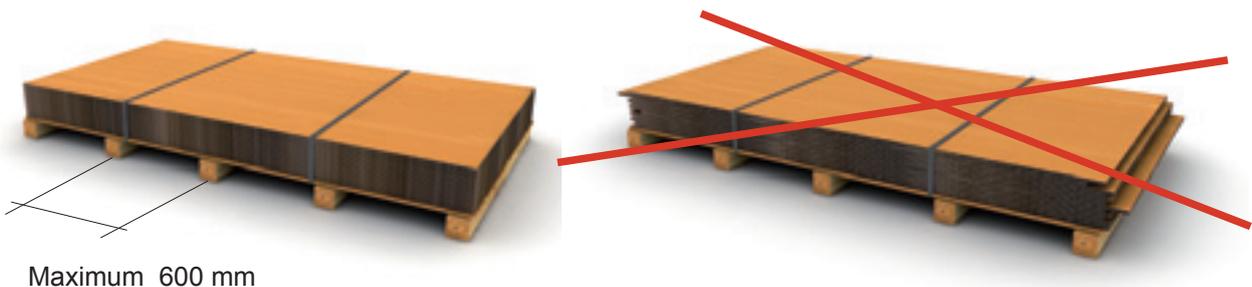
To prevent any possible damage to the decorative layer due to rubbing ensure that the strips do not rub against each other.

## 3.2 Storage

During storage, the panels must be protected from moisture, heat, dirt, damage and panels should be prevented from being distorted at all times as this is irreversible.



The panels must be stored in a closed, ventilated area at an ambient temperature of approximately  $20 (\pm 5) ^\circ\text{C}$  and approximately between 30 - 50% humidity. After placement and storage, the metal bands for transport packaging should be removed. In horizontal storage, the panels must be laid flat along the entire surface. This is the most suitable storage method.



Maximum 600 mm

Panels should not be stored vertically; they will only be supported vertically as a temporary measure and for a short space of time always less than 8 hours.

The ground on which the pallet rests must be free from materials that can cause damage.



**Prodema** sends the panels on a pallet and generally between the pallet and the lower panel a protective coating or film is fitted.

Storage time shall not exceed five months from the date of issue shown on the waybill.

## 3.3 Machining

### 3.3.1 Cutting recommendations:

Before preparing a panel, check that it is perpendicular, the size and straightness of the board.

Panels cuts for interiors must be made with hard metal tools (carbide-tungsten / Widia) for wood finishes with rotary cuts and PCD (Poly Crystalline Diamond) for flat cut wood. Tools must be sharp and prevented from overheating at all times.

• Type of disk:

- Hard material (Widia tip).
- PCD Disk saws (Poly Crystalline Diamond).

Approximate parameters for saw blades according to the type of tool

Diameter (mm)	Teeth (z)	Speed (rpm)	Blade thickness (mm)	Types of teeth
300	48	4000-6000	3,2	Slanted alternating teeth (1) and trapezoidal flat teeth (2).
250	40/48	4000-6000	3,2	
190	30	3000-3500	2,2	



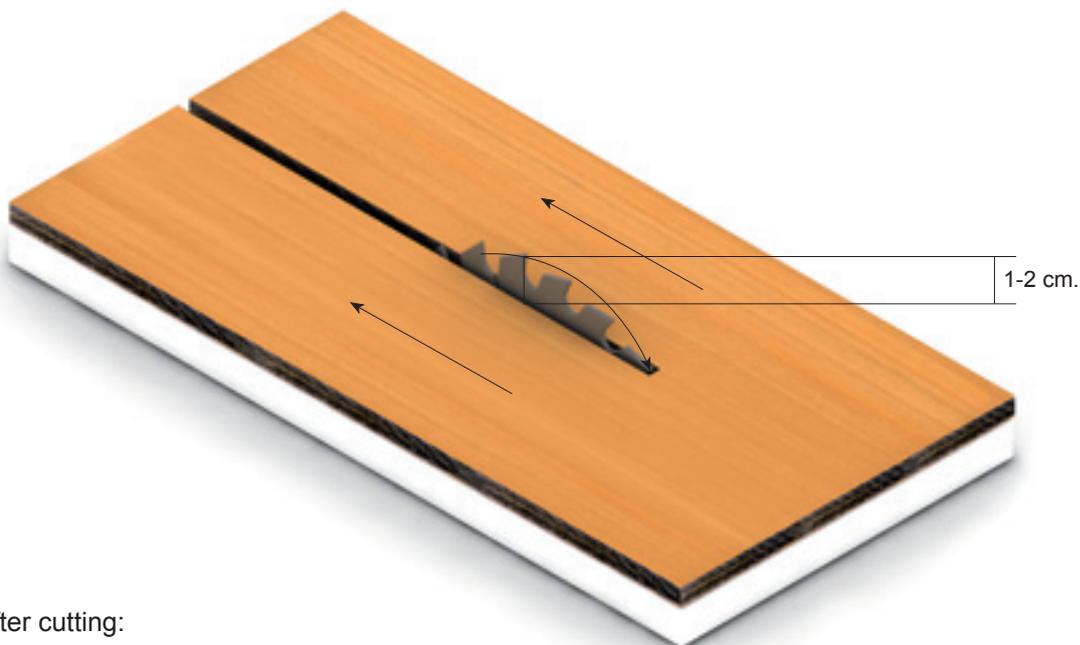
• Placement of the board

The cutting blade must always enter from the board's good side.

- Bench-mounted saw the visible side of the board must be facing upwards.
- Hand-held saw: the visible side of the board must be facing downwards

Height of the cutting blade:

To achieve a clean cut on the exposed side, the cutting blade should protrude approximately 1-2 cm from the material being sawn



After cutting:

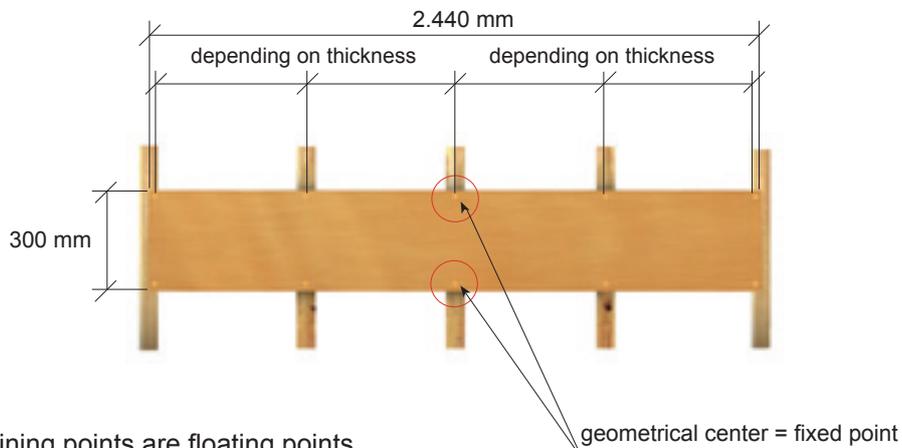
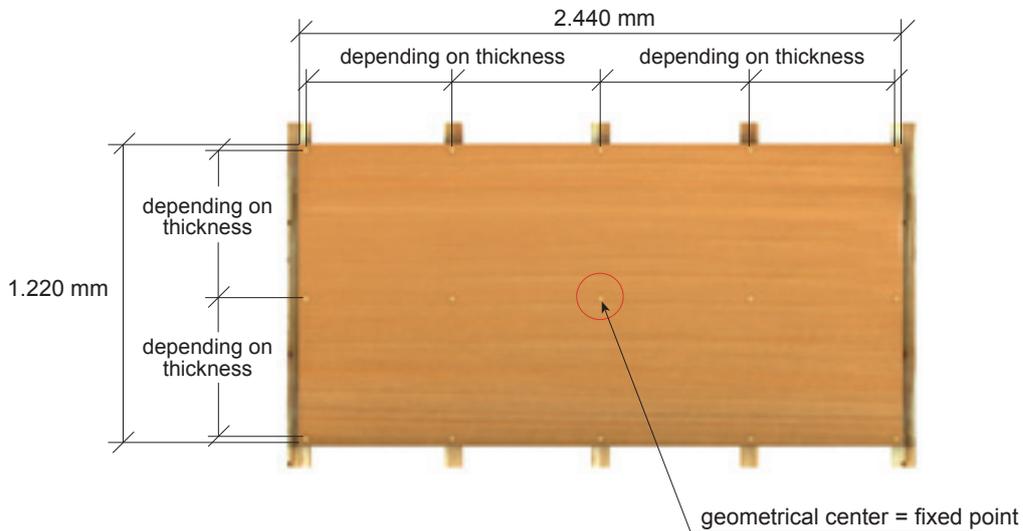
After machining (sawing, drilling, milling, bevelling, sanding and polishing perhaps) the surfaces obtained do not require any finishing treatment or protection treatment. Sharp edges can be smoothed with sandpaper.

### 3.3.2 Drilling Recommendations:

**ProdIN** panels are drilled using integrated hard metal drill bits or steel bits - with tungsten carbide tips (Widia) with a cutting angle greater than 100°. Mounting plates must be placed under the panel to achieve a clean hole.

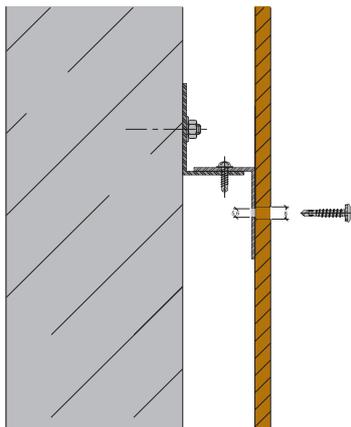
- Hole clearance for screws

All the holes for the exposed fixing board's holding screws must be 1-2 mm greater than the diameter of the screw used, except the hole at the board's geometric centre, which may be the size of the screw. Screw clearance allows the board to expand and contract freely at any time without forcing the screw in the direction perpendicular to its axis.

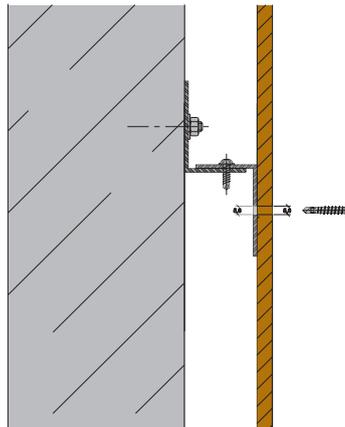


The remaining points are floating points.

### Metal sub-structure with SFS-SX3-L12-5. 5x28 mm

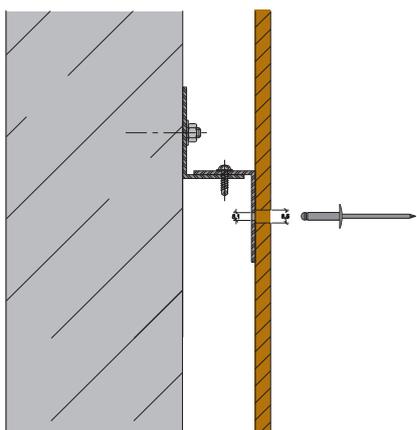


- Floating Points  
Pilot hole in the panel: 8.0 mm  
Pilot hole in the profile: 5.6 mm

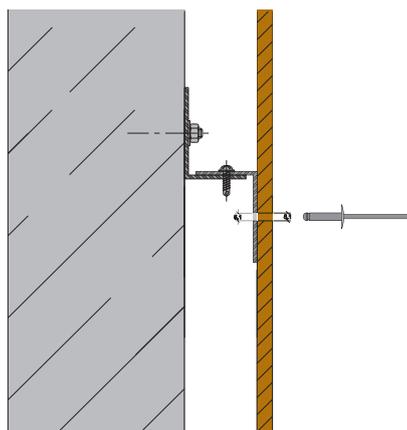


- Fixed points  
Pilot hole in the panel: 5.6 mm  
Pilot hole in the profile: 5.6 mm

### Metal sub-structure with rivet SFS-AP-16-I-S

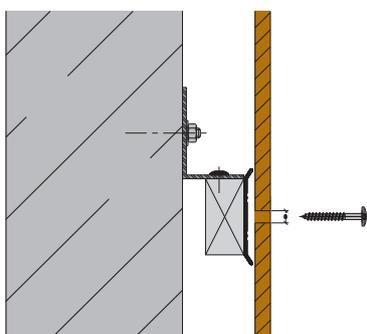


- Floating Points  
Pilot hole in the panel: 8.5 mm  
Pilot hole in the profile: 5.1 mm

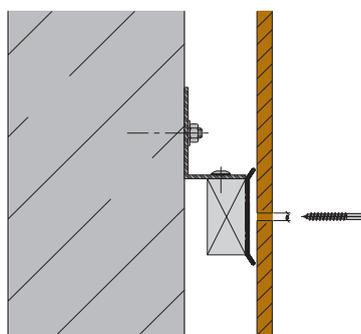


- Fixed points  
Pilot hole in the panel: 5.1 mm  
Pilot hole in the profile: 5.1 mm

### Wood sub-structure with SFS-TW-S-D12-4, 8x38 mm screws



- Floating Points  
Pilot hole in the panel: 8 mm



- Fixed points  
Pilot hole in the panel: 5 mm

### 3.4 Maintenance and Cleaning



Although **ProdIN's** surface is dirt repellent, surface cleaning of the boards to recover their initial appearance and aesthetics may be required with the passage of time.

Cleaning is the only maintenance required for **ProdIN** panels. The **Prodema** patented formula that covers the surface of the **ProdIN** boards means that the surface needs no other preventive wood treatment.

- The following general indications for periodic cleaning are recommended:

- Always use NON-ABRASIVE household detergents dissolved in water.
- Never use abrasive cleaning powders or cleaning pastes that may scratch the surface.
- Always rinse with abundant clean water to avoid the appearance of marks.
- Use a clean soft cloth or sponge that will not damage the surface. Do not use steel wool pads that can scratch the surface.

• **Removing stains from the product:**

Most stains are easily removed using only water and household detergents. However, when necessary, a universal solvent may be used but the surface must be gently rubbed with water and NON-ABRASIVE household detergent and then rinsed. Abrasive cleaners or strong alkaline components and / or acids must not be used. Nitrocellulose-based thinner should not be used as they can cause the formation of scratches on the boards.

**A cleaning test should always be carried out on a small area of the material to verify the effectiveness of the procedure, and only then proceed with the entire surface.**

- Some of the most common stains that can be produced on site can be cleaned as follows:

- Cement stains: if the concrete is still fresh, it can be easily removed with water. However, if the stain has started to set, it must be completely dry before removing it with a cloth. It is important **NOT TO SCRATCH** the surfaces as this will damage the panel, dry stains will come off easily without scrubbing. Rinse with plenty of water.
- Remnants of glue or adhesive: can be eliminated with universal solvent or alcohol. In any case, always clean afterwards with soapy water.
- Paints and primers: check with the manufacturer. Always clean with soap and water at the end.
- Oil Stain: use warm water and a non-abrasive household detergent; there is no need to use solvents and chemical cleaning products.
- Scratches and knocks: there is no method of repairing scratched and knocked panels.

**Important Note: the use of solvents and chemical cleaners should be done respecting the corresponding health and safety rules.**

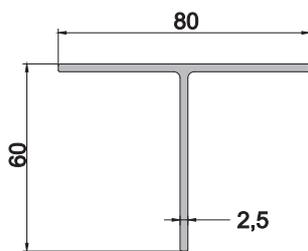
## 3.5 Repairing a damaged panel

Natural wood is a delicate material. There is no prescribed method for repairing of the **ProdIN** panels. Damaged panels must be replaced by new ones.

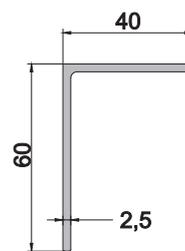
# 4. Accessories

## 4.1 Strips

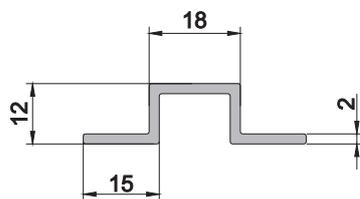
### 4.1.1 Aluminium:



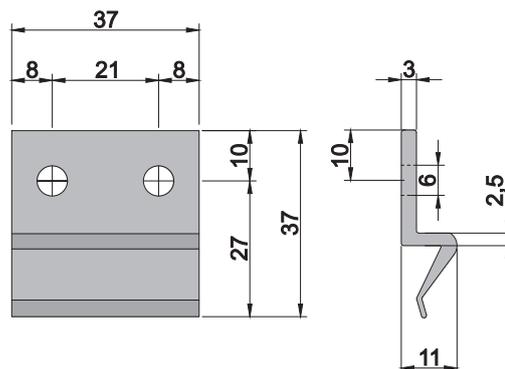
Ref: T-strip  
Material: Aluminium  
Length: 3000 mm bar



Ref: L strip  
Material: Aluminium  
Length: 3000 mm bar

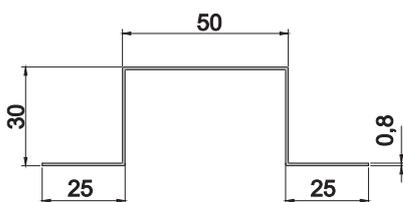


Ref: Omega for indoors  
Material: Aluminium  
Length: 3000 mm bar

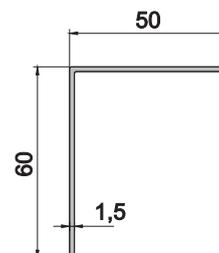


Ref: Hanging hook for interiors  
Material: Aluminium  
Length: Piece

### 4.1.2 Steel:



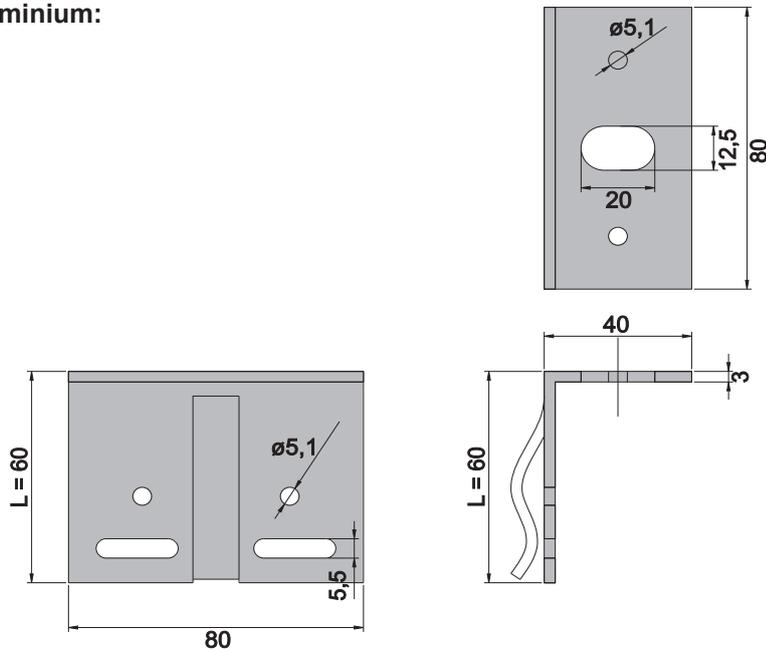
Ref: Omega strip  
Material: Galvanized steel  
Length: 2500 mm bar



Ref: L-strip  
Material: Galvanized steel  
Length: 2500 mm bar

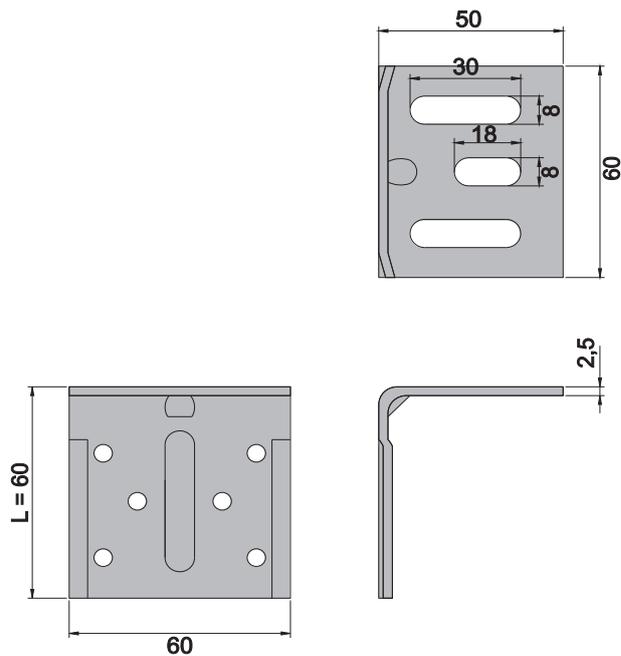
## 4.2 Cement fixing elements

### 4.2.1 Aluminium:



Ref: Angle L60  
Material: Aluminium

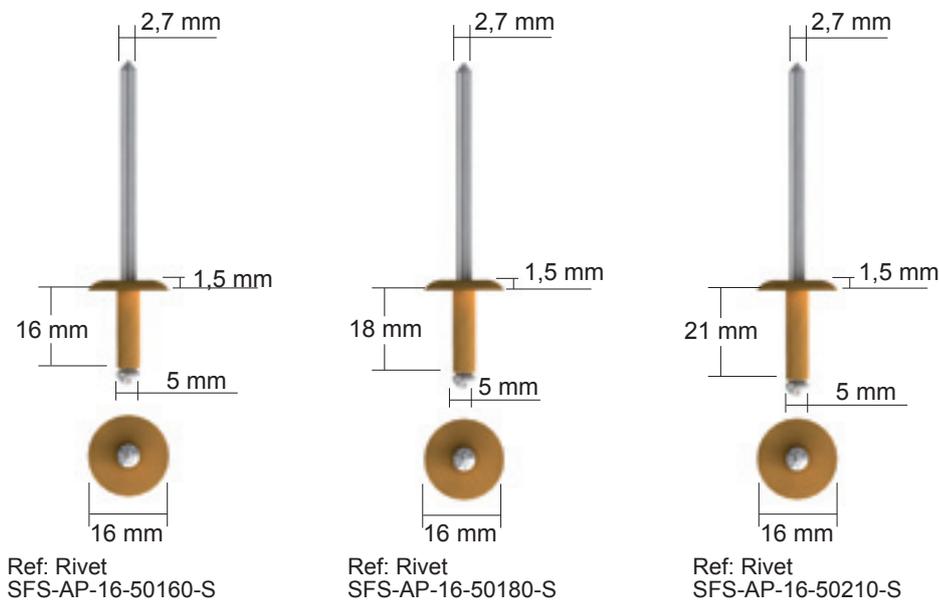
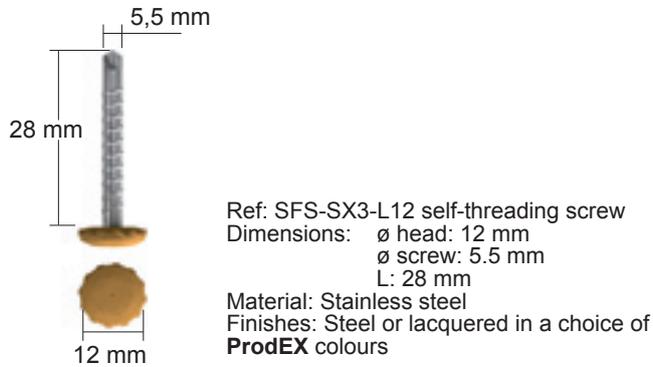
### 4.2.2 Steel:



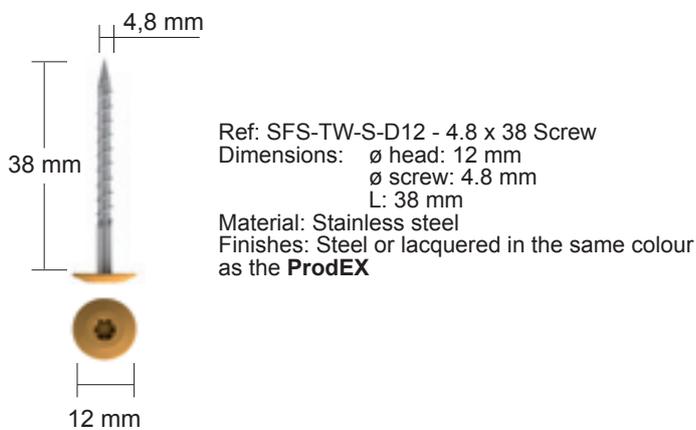
Ref: Angle L60  
Material: Galvanized steel

## 4.3. Screws and rivets

### 4.3.1 Fixing the board to the metal strip



### 4.3.2 Fixing the board to the wooden strip

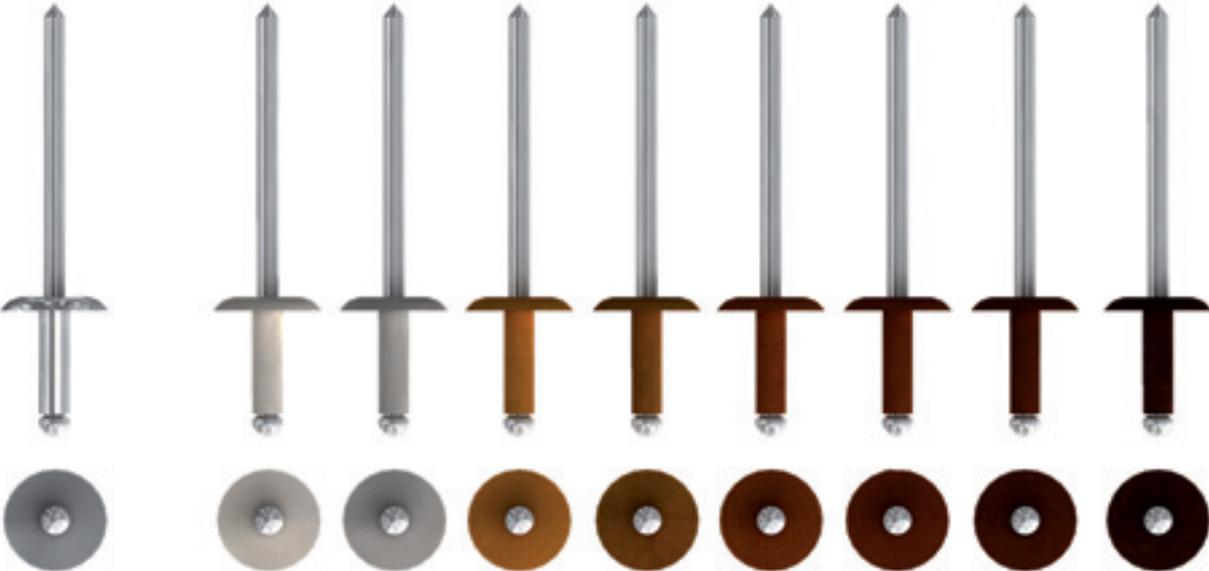


To choose the colour of these screws see the following page.

**SFS-SX3-L-12 self-threading screws**



**SFS-AP-16-L-S rivets**

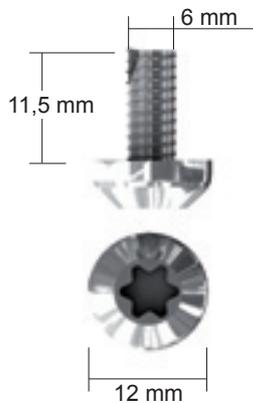


**SFS-TW-S-D12-4.8x38 screws**



The description of the products' features and the technical instructions for their use contained in this document do not imply any contractual obligations whatsoever on the manufacturer's part. They correspond to current knowledge and may be modified without prior warning. This document contains general information that may be updated through that given in the manufacturer's website.

### 4.3.3 Fixing the board to the hanging hook



Ref: Screw Panel TB-A2 TX 30  
Dimensions:  $\varnothing$  head 12 mm  
 $\varnothing$  screw: 6  
L: 11.5 mm  
Material: Stainless Steel  
Finishes: Stainless Steel

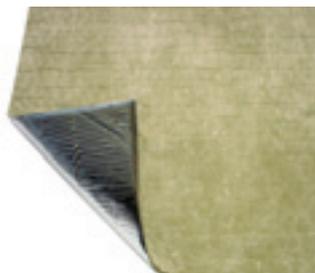
## 4.4 Sound insulation and floor movement seal

### 4.4.1 Polyethylene foam sound insulation



Ref: Estalki Pack ESPOL 30  
Dimensions: Coil width 1600mm  
100m coil length ( $\pm 6$ )  
Material: Polyethylene with sealed bubbles  
Thickness: 3 mm ( $\pm 0.3$ )

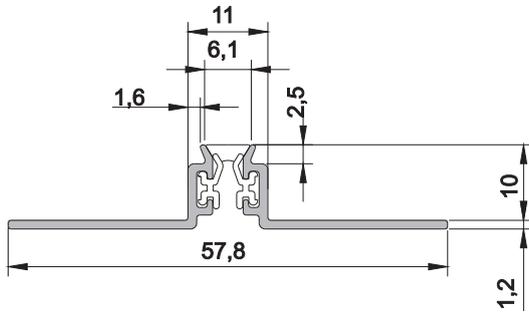
### 4.4.2 Sound insulation with steam barrier



Ref: Interfloor Timbermate Excel  
Dimensions: Coil width 1370mm  
Coil length 11m  
Material: Green foam rubber with "vapourstop" membrane  
Thickness: 3.6 mm ( $\pm 0.3$ mm)

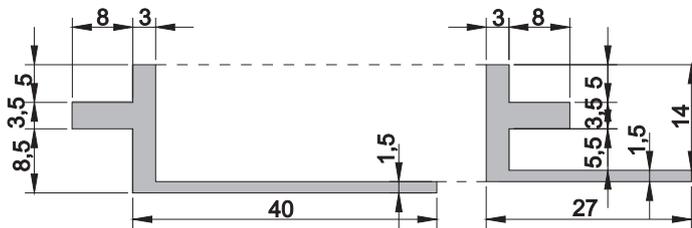
#### 4.4.3 Movement seal for floors

- For 11 mm thick **Supra**



Ref: Schlüter® - DILEX- AKWS  
Length: 2500mm Bar  
Material: Aluminium profile and soft PVS movement area

- For 14 mm thick **Supra**



Ref: Expansion joint  
Length: Bar 3000mm  
Material: Aluminium profile

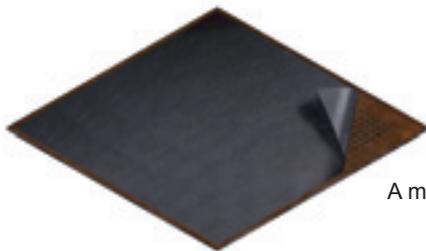
### 4.5 Auxiliary elements

#### 4.5.1 Screwdriver



Ref: 420-E Federversion Screwdriver.

#### 4.5.2 Sound film



Ref: Polypropylene non-woven - Sound film  
Thickness: 0.40 mm  
Material: Non-woven (adhesive on one side)  
in black colour.

A material that promotes sound absorption.

For more information on accessories, please contact **Prodema S.A.**

# 5. Other Prodema products

## Prod **E** **X** exteriors by Prodema®

We would like to present **ProdEX** by **Prodema**:

The new and revolutionary generation of natural wood composite products for covering façades by **Prodema**, the result of intensive R+D+I work, achieves unprecedented technical results:

- Solid colour and artificial climate resistance: according to standard EN 438 - 2:2005 (section 29).  
Passes 6000 hour Xenon test.
- Reaction to fire: according to standard EN 13501-1:2002.
- Graffiti resistance: according to standard ASTM D 6578: 2000.

*Clinica Pombaldial (Pombal - Portugal)*  
Arq. Filipe Sousa

And, of course, with the same spectacular aesthetic results that **Prodema** is famous for, and which have captivated thousands of architects the world over.





Some **skins** do  
withstand the best of time



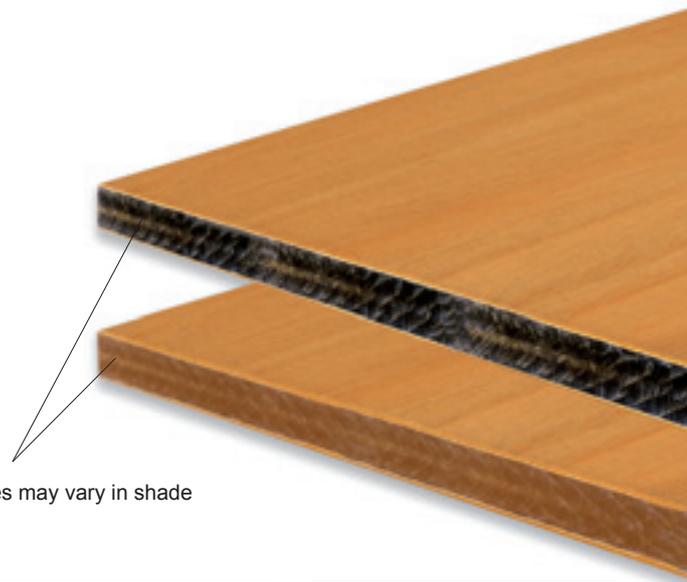
# ProdEX

exteriors by Prodema®

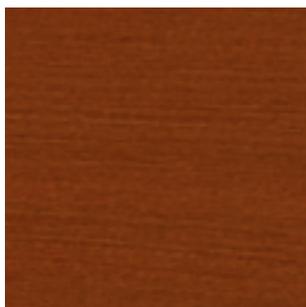
**ProdEX** (by **Prodema**), our new line of exterior cladding, is about to change the mindset in architecture on a global level.

Because with **ProdEX** (by **Prodema**) finally there is a range of composite wood, which synthesizes all the benefits of a material so noble, beautiful and versatile as wood, with the guarantee of performance and durability that our patented formula based on paper and resins offers.

Opening up a new world of possibilities to architects or quantity surveyors seeking a real alternative to cold, grey and mundane materials for cladding their buildings.



Edges may vary in shade



Light Brown \*



Rustik \*\*



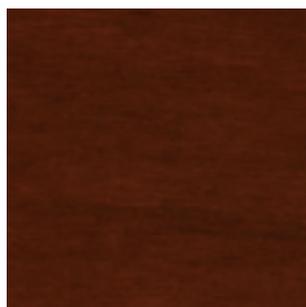
Light \*



Mocca \*



Cream \*



Brown Toast \*\*



Dark Brown \*



Ice Grey \*\*

\* Ayous veneer

\*\* Okume Veneer



65<sup>th</sup> Street Village  
Mark Dziewulski Arch.  
California (USA)

# Prodedema®

## 6. Prodedema the company



Our corporate brand is built around 3 basic mainstays:

## *Class and comfort*

Here at **Prodema** we are convinced that it's not really a question of selling our wooden products, but rather the added value that the class, elegance, design and comfort that our products bring to our clients' architectural and decoration projects. That is why we are committed to innovation and to continue our quest to find wood-based architectural solutions.

R+D+I Dept.



## *Quality*

What's left to say about quality? However, at **Prodema** we are particularly sensitive to this concept, as we are aware of how demanding our clients are and, above all, how demanding our clients' clients are. For that reason we make twice the effort.

We understand quality to be an intrinsic part of the product as well as the service we offer.

**Prodema** has a management system certified with the ISO 9001:2000 standard.



# Corporate Social Responsibility

At **Prodema** we love wood, because it is our life and livelihood. This is why, apart from strictly meeting all international standards, we have also launched a plan that we have called “Friends with nature” in which we will heighten our support for all matters related to sustainable forest management.

Hence, **Prodema** products are manufactured in line with the strictest environmental requirements of the UNE-EN ISO 14.001:2004 standard, and this also explains why **Prodema** does not market any wood species listed in appendices 1, 2 and 3 of the CITES convention.

In addition, upon request, certificates can be requested with the PEFC for **ProdEX** panels which guarantees that the wood and other products of wood origin used to manufacture the **ProdEX** panels are from forests that are managed in an environmentally sustainable fashion.



Prodema®

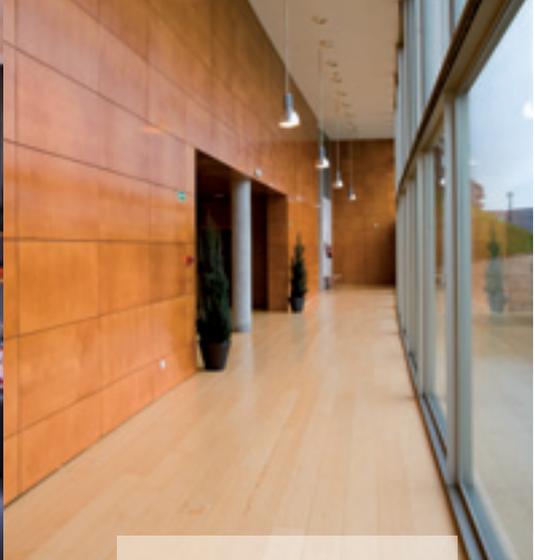
## *Prodema around the world*

**Prodema** means beauty, warmth and experience in wooden floors and coverings.

We have been working in this field for over 100 years, and this experience has enabled us to become what we are today: a reputable brand respected by architects around the world, who have found in our products the breath of fresh air they had been looking for to meet their creative needs.

With over 75 regional offices all over the world, **Prodema** is now a global trademark and can be seen in many of the large-scale architectural projects in a wide range of countries.





# Prodema®

Made to last wooden Products

## We just

## trees

At **Prodema** we have always been committed to the environment in general and specifically with forest sustainability.

Our compromise may seem selfish, and in fact it is. But above all it is sincere; because having worked with wood for over 100 years has led us to respect it and to be conscious of the importance to establish policies to protect it.

That is why we accepted the CITES convention so many years ago. We also obtained the **ISO 14001** certificate.

Now, we have taken a large step by obtaining the **PEFC** Certificate which guarantees that the wood and other products of wood origin used to manufacture **ProdEX** panels are from forests that are managed in an environmentally sustainable fashion.



**PEFC**<sup>™</sup>  
PEFC/14-35-00025

B° San Miguel, s/n • 20250 Legorreta • Gipuzkoa (Espanne)  
T.: (+34) 943 80 70 00 • F.: (+34) 943 80 71 30 • E.: [prodema@prodema.com](mailto:prodema@prodema.com)

[www.prodema.com](http://www.prodema.com)

Prodema®  
Made to last wooden Products

# rodin

interiors by Prodema®

**PRODEMA HEAD OFFICE AND FACTORY**

B° San Miguel, s/n  
20250 Legorreta  
Gipuzkoa (SPAIN)  
Tel.: (34) 943 80 70 00  
Fax: (34) 943 80 71 30  
E-mail: [prodema@prodema.com](mailto:prodema@prodema.com)  
<http://www.prodema.com>

Your local **Prodema** representative:

