







Photo: Actiu

2 COMPACMEL PLUS

# COMPACMEL PLUS THE WOOD COMPACT



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Hotel and hospitality equipment Hospital equipment and facilities Ephemeral art

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Technical recommendations Installation recommendations Edge sealing recommendations Hardware recommendations Certifications Technical data

#### LEED CREDITS: SUSTAINABLE CONSTRUCTION

Our products offer LEED credits in the following areas:

- Recycled content
- Regional materials
- Rapidly renewable materials
- Certified wood
- Low-emission materials

#### CERTIFICATIONS: WOOD FROM SUSTAINABLE FORESTS

The Chain of Custody certifies the route of the raw materials from the forest to the consumer / customer, including all stages of the process; i.e., it warrants that the products purchased are made with materials from sustainably managed forests.

This warranty through PEFC and FSC  $^{\mbox{\tiny (B)}}$  certificates, includes the production and marketing of wood-based products.



FSC<sup>®</sup> C041397 The mark of responsible forestry

FSC

www.fsc.org

COMPACMEL PLUS

## **ENVIRONMENT** AND SUSTAINABILITY

## **TRANSPARENCY:** ECOLOGICAL PRODUCT FOOTPRINT

In 2011, FINSA became the first technical wood manufacturer on the lberian Peninsula providing the Environmental Product Declaration (EPD) for its products.

The EPD is a tool for conveying clear, transparent information on the impact of a given product upon the environment during every stage of its life cycle.

In the case of our products, it confirms that wood is a material that keeps capturing greenhouse gases throughout our entire production process.

1 m<sup>3</sup> of MDF

597 kg de CO

#### DID YOU KNOW ...?

m<sup>3</sup> of Fimapan

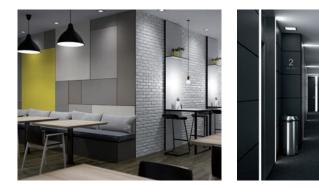
44 kg de CO

The production process of CompacMel Plus saves up to 80% of the emission of greenhouse gases compared to the traditional phenolic compact process.



A SOLUTION IN WOOD SPECIALLY DESIGNED FOR USE IN HIGHLY HUMID INDOOR ENVIRONMENTS OR APPLICATIONS REQUIRING HIGH RESISTANCE.





#### FEATURES

The COMPAC PLUS / COMPACMEL PLUS products come from our strong commitment to technological development and innovation, diversifying our range of products to provide solutions for the most demanding projects.

COMPAC PLUS is a high-density wood fibre board (>1000 kg/m<sup>3</sup>), with excellent physical and mechanical properties.

With a wide range of modern trendy designs, COMPACMEL PLUS also features a highstrength melamine coating.



#### **APPLICATIONS**

- Sports facilities: lockers, locker rooms and • benches, shower screens \* ... Commercial facilities: fitting rooms, store
- counters...
- Cultural center's facilites: wardrobe, • Air and land transport facilities. School and office furniture: bookcases,
- •
- tables and desks...
- Kitchen furniture: countertops\* ۲
- Hospital equipment: tables, beds, cabinet • doors...

- Hotels and hospitality equipment... ٠
- Facilities for common areas of buildings •
- Storage: cupboards, shelves...
- Suspended dividers in public toilet facilities •
- Panels
- Interior doors •

\* for this application it is recommended to seal the edges.







## **ANTIBACTERIAL**



The growing demand for products that prevent the development of harmful germs to health has led us to work in there search field, looking for materials that can meet these requirements. As a result of this work, FINSA has developed surfaces with Antibacterial properties by its own means.

The CompacMel Plus surface has been tested by an external laboratory, the IMSL (Industrial Microbiological Services) in the UK, following the procedures outlined by ISO 22196: 2011, which confirms that the performance of CompacMel Plus inhibits the growth and development of bacteria, without affecting its coating features.

Tested with the following bacteria:

- S. aureus, which can produce a large variety of diseases, ranging from skin and mucous infections, to life-threatening diseases such as meningitis, pneumonia, etc.

- E. coli, which can cause diarrhea and

#### ANALYSIS CERTIFICATE NO. 1023308.1E-1

**ISSUED BY IMSL** 



IMSL INDUSTRIAL MICROBIOLOGICAL SERVICES LTD

#### IMSL

Industrial Microbiological Services (UK) www.imsl-uk.com

Method: Calculation of antibacterial activity by using ISO 22196: 2011

RESULTS (AS CFU CM-2)

SAMPLE

		CONTACT	TIME	REDUCTION	LOG % DIFFERENCE
COMPACMEL	E. Coli	1.7E+04	≤ 1.0	≥ 4.2	> 99.99%
PLUS	S. aureus	2.0E+04	≤ 1.0	≥ 4.3	> 99.99%

The above data show the difference between the initial and final bacterial populations after contact with sample surfaces, referenced for 24 hours at 35 °C, at a relative humidity of

## **TECHNICAL** CERTIFICATIONS:







#### CERTIFICATION

AlDIMA, the Technological Furniture, Wood, Packaging and Similar Products Institute, is a non-profit organization established in 1984, equipped with one of the best Technological Institutes in Europe. A complete characterization of CompacMel Plus has been conducted at their laboratories, assessing both the support as well as the coating properties.

"The tested product CompacMel Plus meets the requirements of the following standards, which apply to kitchen and bathroom furniture":

- UNE 56 842
- UNE 56 843UNE 56 867
- UNE 56 868
- ISO 19712-1



#### THERMAL CONDUCTIVITY

Thanks to the good thermal conductivity values achieved, CompacMel Plus is a perfect product for wall cladding, as it substantially improves thermal insulation, and thus reduces energy consumption.

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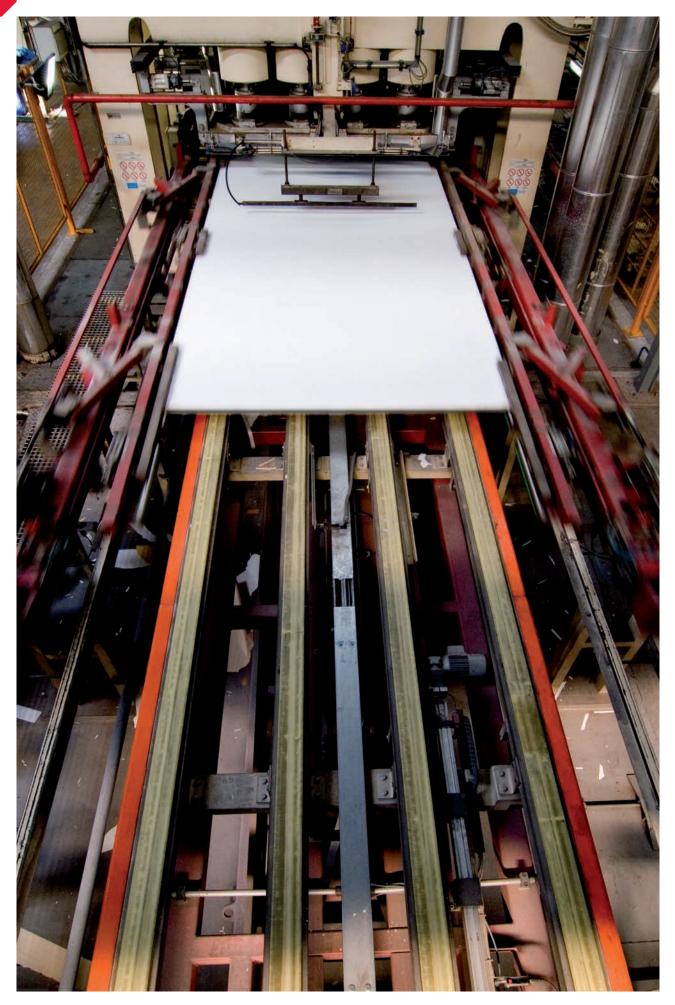


#### ASSESSMENT OF THE BASEBOARD'S RESISTANCE

FEATURE	STANDARD	UNIT	COMPACMEL PLUS
Density	EN 323	kg / m <sup>3</sup>	1050-1100
Surface pull-off	EN 311	N / mm <sup>2</sup>	> 3.5
Surface screw pull-off	EN 13446	N	> 1300
Impact resistance. Fall height	UNE 56754	mm	> 2000
Swelling in thickness after 24h immersion in water	EN 317	%	0.15
Thermal conductivity	EN 12667	W/mK	0.12

#### ASSESSMENT OF THE SURFACE RESISTANCE WHITE SR 209 REFERENCE

FEATURE	STANDARD		HPL STAN- DARD RE- QUIREMENT	COMPAC- MEL PLUS*
Appearance	UNE 56867	Assessment	Zero deffects	Zero defects
	EN 438-4	Group 1 agents. Assessment	≥ 5	5
Stain resistance		Group 2 agents. Assessment	≥ 5	5
		Group 3 agents. Assessment	≥ 4	5
Stain resistance. Kitchen furniture. Working planes	UNE 56 842	Assessment	≤ 1	0
Ctain radiatance Dathroom furniture Tailet plance	UNE 56 867	Colour. Assessment	≥ 4	5
Stain resistance. Bathroom furniture. Toilet planes	UNE 30 007	Gloss. Assessment	≥ 3	5
Abrasion resistance	EN 400 4	Initial point IP (cycles)	≥ 150	900
ADIASION RESISTANCE	EN 438-4	Resistance (cycles)	≥ 350	1150
Resistance to ball drop	EN 438-4	Fall height (mm)	≥ 1800	≥ 2000
Resistance to ball drop. Kitchen furniture	UNE 56 842	Assessment	No cracks	No cracks
Resistance to ball drop. Bathroom furniture	UNE 56 867	Assessment	≤ 1	0
Resistance to ball drop. Solid surfaces.	ISO 19712-1	Assessment	No cracks	No cracks
Colour fastness to light	EN 438-4	Grayscale. Assessment	≥ 4 - 5	5
Steam registered Colour / glass appagement	UNE 56 867	Colour. Assessment	≥ 4	5
Steam resistance. Colour / gloss assessment	UNE 30 007	Gloss. Assessment	≥ 4	5
	UNE 56 867	Colour. Assessment	≥ 4	5
Resistance to dry heat at 180 °C	UNE 30 007	Gloss. Assessment	≥ 4	5
Resistance to moist heat at 100 °C	EN 438-4	Other types of finishing. Assessment	≥ 4	5
Crack resistance	EN 438-4	Assessment	≥ 4	5
Cigarette burn resistance	EN 438-4	Assessment	≥ 3	5
Scratch resistance	EN 438-4	Smooth finishing	≥ 2	5
Thermal shock cycles	UNE 48025	Assessment	Zero defects	Zero defects
Resistance to attack by hydrochloric acid	Internal method	Assessment		5



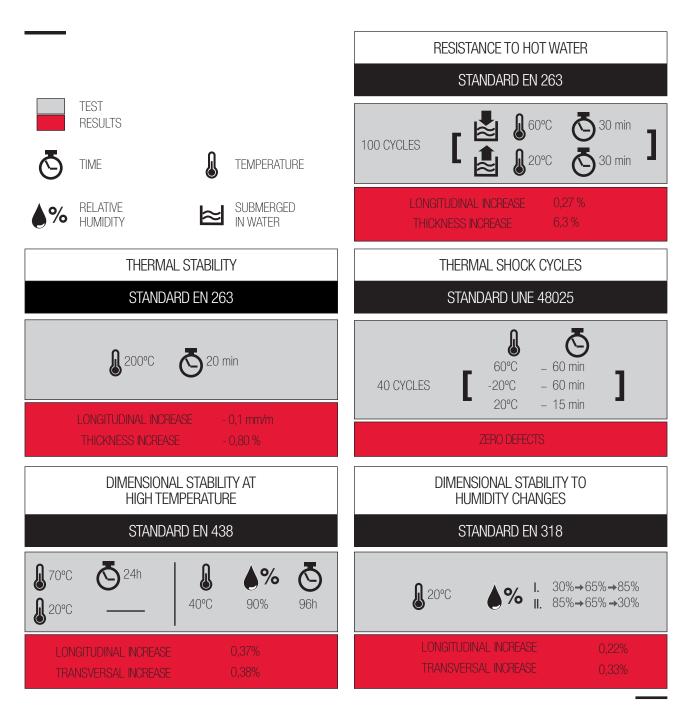


#### FEATURED DATA

In tests conducted by AIDIMA, the product's resistance to changing temperature and humidity conditions was assessed.

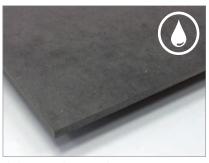
The following tests were conducted, whose results are shown below:



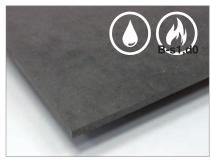


## RANGE QUALITIES, FORMAT AND DESIGNS





#### **COMPAC PLUS**



2850 x 2100

8

36

#### COMPAC PLUS **FIRE-RETARDANT**

Size (mm)		2850	x 2100	)
Thickness (mm)	8	10	12	13
Units / pack	36	28	24	22

Minimum: 1 pack Production possibilities: thickness 6 - 16 mm

Minimum: 1 pack Production possibilities: thickness 8-13 mm

Size (mm)

Units / pack

Thickness (mm)



COMPACMEL PLUS Melamine faced

#### STANDARD RANGE

Size (mm)	2850 x 2100
Thickness (mm)	13

Minimum: 1 board

Designs: CompacMel Plus Range (Soft III Texture)

#### FI FXIBI F RANGE

Format (mm)	2	2850	x 210	0
Thickness (mm)	8	10	12	13
Units / pack	36	28	24	22

Min.:1 pack CompacMel Plus range (soft III) 2 packs Gama Duo and Blanco Super (soft III)\*



## COMPACMEL PLUS FIRE-RETARDANT

Melamine faced

STANDARD RANGE	
Size (mm)	2850 x 2100
Thickness (mm)	8

Minimum: 10 boards Designs: CompacMel Plus Range (Soft III Texture)

#### FLEXIBLE BANGE

Format (mm)	2850 x 2100
Thickness (mm)	8
Units / pack	36

Min.:1 pack CompacMel Plus range (soft III) 2 packs Gama Duo and Blanco Super (soft III)\*

#### Veneer supply option: COMPAC PLUS NATUR

Consult our sales network.

\* Available with a minimum order quantity of 1 pack in any Gama Duo décor. Please ask your Finsa sales representative.

### **COMPACMEL PLUS** RANGE

TEXTURE: SOFT III

78E_WHITE SR209	15R_GRIS COCO
183_CREMA 005	11R_VISON CHIC
01Q_GRIS TORTORA	53S_MOKA CHIC
U12_NATURAL GREY	72E_ALUMINIO AROSA
71A_GRIS GU	231_NEGRO
172_ROJO	139_AZUL EO
22G_AMARILLO SOL	54C_VERDE NATURAL

## APPLICATIONS PROJECTS AND IDEAS



Company offices automotive sector / VALENCIA - Designer: AC arquitecture - Installer: Armarios Levante, S.L.

## APPLICATIONS PROJECTS AND IDEAS





DISSENY HUB BARCELONA BUILDING. PHOTOGRAPHY LOURDES JANSANA

#### **RECOMMEND BY...**

#### IGNASI BONJOCH INTERIOR DESIGNER

#### WWW.BONJOCH.COM

Ignasi Bonjoch began his professional career in 1990 by founding the Bonjoch Studio. Throughout these 25 years, he has faced numerous projects in the field of interior design and ephemeral space, from the earliest stages of strategy and positioning, to final resolution.

Wood and its qualities have always had a prominent role in his portfolio, and that is why Finsa's decorative solutions have been integrated into several of his studio's flagship projects.

#### DISSENY MUSEUM BARCELONA

Ignasi Bonjoch designs and plans the 2nd floor of the Disseny Hub Barcelona: the Design Museum that brings together the Design Museums in Catalonia:

"In the Museum we find many large, really heavy historical pieces, which we have arranged upon CompacMel Plus as an exhibition platform. This choice allowed us to move and place these pieces without fear of scratches, thanks to the highly resistant surface. The perfect edge cutting also allowed us to leave it visible, thus saving time and processes, without sacrificing quality and design."

Download the video Finsa / the expert's opinion With Ignasi Bonjoch





DISSENY MUSEUM BARCELONA. EXTRAORDINARY EXHIBITION! COLLECTIONS OF DECORATIVE ARTS AND AUTHOR'S ARTS (3RD-20TH CENTURIES). PHOTOGRAPHER: LAFOTOGRAFICA

#### OFFICE FACILITIES

COMPANY OFFICES AUTOMOTIVE SECTOR VALENCIA (SPAIN)

DESIGNER: AC ARQUITECTURE INSTALLER: ARMARIOS LEVANTE, S.L. APPLICATION: BACKLIT PANEL











#### EDUCATIONAL FACILITIES

CHILDREN EDUCATION CENTRE CALLOSA, ALICANTE (SPAIN)

DESIGNER: DESIGNER: ROCAMORA ARCHITECTURE AND ALEXANDRE MARCOS PHOTOGRAPHY: DAVID FRUTOS APPLICATION: FURNITURE











BILBAO ARENA SPORTS PALACE BILBAO (SPAIN)

DESIGNER: BILBAO EKINTZA, E.P.E.L. APPLICATION: SANITARY CABINS

#### WASHROOM AND TOILET CUBICLES / CHANGING ROOMS



BAI GYM FITNESS CENTRE BILBAO (SPAIN)

DESIGNER: MIABSA ARQUITECTURA INTERIOR, WWW.MIABSA.COM APPLICATIONS: LOCKERS

> FINSA 21 SPACE MADRID (SPAIN)

DESIGNER: LILIAN FLORES APPLICATION: TOILET





#### SPORTS FACILITIES

REAL AEROCLUB OF SANTIAGO AMES (SPAIN)

DESIGNER: CARBAJO Y BARRIOS ARQUITECTOS / JUAN PINTO APPLICATIONS: LOCKERS / INSTALLATIONS PRODUCT: COMPAC PLUS NATUR





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## COMMERCIAL AND SPORTS FACILITIES

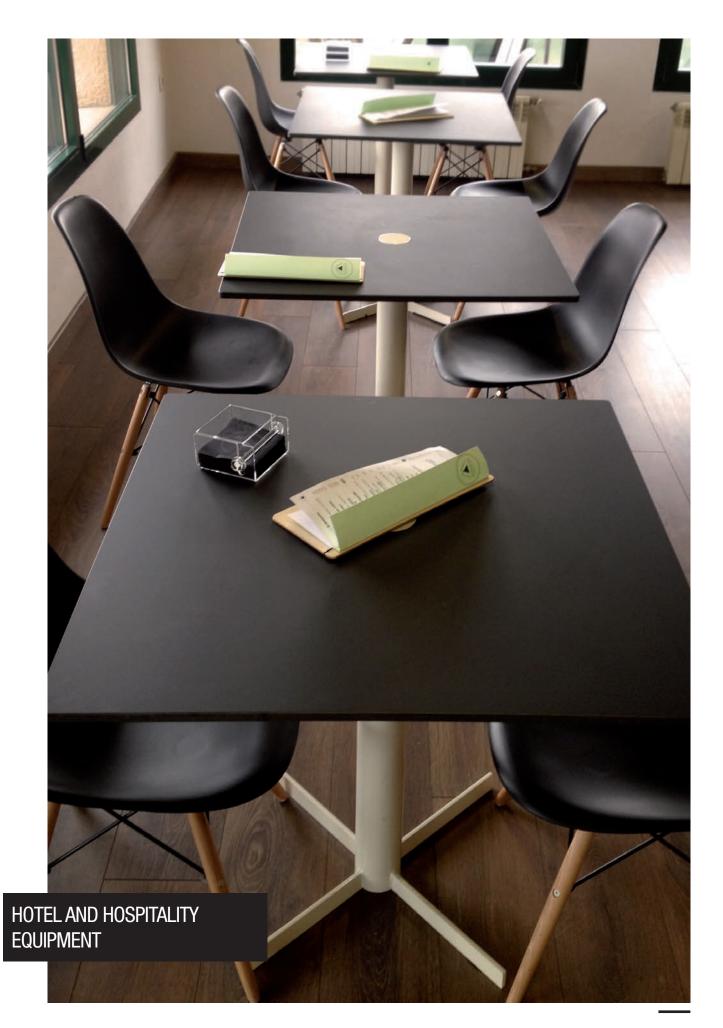


IMD ERMUA GUIPUZCOA (SPAIN)

DESIGNER: EBANISTERÍA LANDA, S.L. AND COMERCIAL VILARRASA APPLICATION: COUNTER

RESTAURANT MADRID (SPAIN)

DESIGNER: ANTONIO VELA COSSIO APPLICATION: FURNITURE





#### HOSPITAL EQUIPMENT AND FACILITIES

HOSPITAL DE VALDECILLA SANTANDER (SPAIN)

DEVELOPER: UTE VALDECILLA (FERROVIAL AGROMAN, S.A., AND SIECSA CONSTRUCCIÓN Y SERVICIOS) WWW.FERROVIAL.COM AND WWW.SIECSA.COM INSTALLER: JAVAL, S.L. APPLICATIONS: CUPBOARDS, WINDOW FRAMES, COUNTERTOPS, AND PEDIATRICS BABY CHANGING FACILITIES





#### ephemeral Art

#### **EMBRUNS**

LIVING ARCHITECTURES FESTIVAL, LA GRANDE MOTTE, FRANCE

DESIGNERS: AMANDINE ROMANET, ARNAUD MALTHIEU & MATTHIEU THUILLIER

PAUL KOZLOWSKI ©PHOTOARCHITECTURE.COM/FAV







# COMPACMEL PLUS DATA SHEETS

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Specific recommendations

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Compac plus

Compacmel plus

Fire-retardant Compac Plus

Fire-retardant Compacmel Plus



These are just indicative technical data. Due to continuous product development, as well as that of the standards by which products are governed, some parameters may change.

For more information please visit the website: www.finsa.com



# TECHNICAL RECOMMENDATIONS

# COMPACMEL PLUS

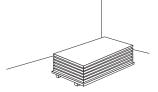
Proper board storage and packaging prevents undesirable deformations, and helps preserve flatness.

# STORAGE AND ACCLIMATIZATION RECOMMENDATIONS

# STORAGE.

It should be stored in closed, ventilated, dry storage rooms, protected from sun, rain, frost and chemical splashes, in compact stacks.

Pallets shall be placed upon flat, levelled surfaces, and the boards shall remain packaged in similar conditions to those of the original packaging, in order to properly retain



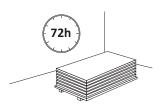
their properties. When packages are stacked, it is recommended that the runners be aligned vertically to prevent warping.

Prevent boards from being subject to different humidity and temperature conditions on each of their sides.

# ACCLIMATIZATION.

Wood and all wooden boards, given their hygroscopic properties, capture and release moisture to surrounding environment, depending on the temperature and humidity of such environment, causing dimensional variations.

Preconditioning of boards is recommended. Before processing, it is recommended to let them get adapted to the environment for at



least 72 hours before use.

In case of on-site use (coating, room dividers, etc.), the boards must be stabilized at the installation site in order to achieve balance and minimize dimensional variations once installed.

## HANDLING AND MACHINE WORK RECOMMENDATIONS

## HANDLING.

The product must be handled with appropriate care, like with any other melamine-coated board, avoiding intense friction between surfaces that may damage the decorative side.

# CLEANING.

The product can be cleaned with a damp cloth, and a mild cleaning agent in small doses. Abrasive elements and excessively acidic or alkaline solutions should be avoided. Prolonged exposure to wet surfaces and / or direct contact with water should be avoided.





Common tools can be used for cutting and machine working the wooden boards, just as for any other wood-based panels, although specific parameter settings may be required (cutting speed, feed rate), for a good finishing. To increase tools service life, the use of diamond cutting tools is recommended.

Product features allow it to be machine worked, and to use visible edges.

It is recommended to consult your usual tools provider for further information and advice.



# INSTALLATION RECOMMENDATIONS 1/2

# **GENERAL INFORMATION**

Proper board storage and packaging prevents undesirable deformations, and helps preserve flatness.

exposed to or in contact with stagnant water, exposed surfaces, especially in wet rooms. not even during the assembly process.

- Follow all technical specifications regarding dimensional changes when designing the facility, considering expansion joints in the case of coatings, or suitable clearance in the case of rebates. Likewise, when fasteners are used. which should allow adequate dimensional variations during the facility's service life,

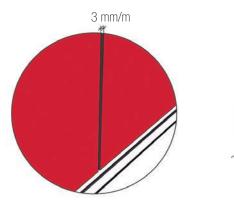
- To ensure appropriate expansion, there • should be at least one joint between panels for 3 mm / m linear board.
- There should be no more than a single fixed point in the entire assembly unit, the remaining fastening points should enable movement.

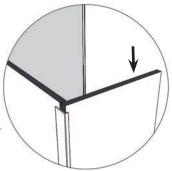
The material should be dry, and NEVER - FINSA recommends SEALING edges and Applying a sealant to the edges will improve the performance of the board when exposed to changing conditions of Temperature and Humidity.

> - When using adhesives, they must be flexible to enable panel movement.

> - In the case of using countersunk screws, they should be placed with support rosettes. If it is a ball screw, it will cover the sliding hole.

> - For decorative purposes, wax, oil or vaseline can be applied to the visible edge to enhance its colour.





# SPECIFIC RECOMMENDATIONS

Compacmel Plus boards are suitable for installation as paneling in areas requiring intensive cleaning, for their mechanical and surface properties; and are suitable for the manufacture of sanitary cabins and bathrooms dividers, thanks to their moisture resistance and easy-to-clean surfaces.

# WALL CLADDING

Compacmel Plus is suitable for panel coating ventilated walls, in which the board is attached to a substructure, which, in turn, is attached to the brick, concrete or wooden wall, ensuring appropriate ventilation and air circulation.

it should always be mounted on a substructure, never directly onto the wall, even if it is completely flat, and the wall should be checked to confirm that it is completely dry before panel installation.

Ventilation of the rear chamber between the board and the wall ensures the appropriate temperature and humidity balance on both sides of the board, preventing deformation by differential variations. It is advisable to ensure that the air circulation gap is at least 20 mm thick, and that ventilation is provided from the bottom to the top.

The substructure can be built with board strips, wood, steel or aluminum, and can be made with horizontal and / or vertical profiles (battens).

Compacmel Plus can be attached to the substructure by:

- visible fasteners, with screws or rivets from the visible side to the substructure,



- concealed fastening, with hanging aluminum clamps or adhesive ribbons on the back side of the board to be fastened or attached to the substructure, following the above stated recommendations (general notes).

In case of hanging horizontal mounting rails, it should be done in such a way that it ensures vertical ventilation.

## FOR COATINGS WITH VISIBLE MECHANICAL FASTENING

When using screws or rivets as fasteners, the following is required:

- Arrange the fasteners starting from the center of the board.

- Only one fixed point per assembly unit, all others must be sliding points.

Fixed point means that in which the diameter of the bore matches the diameter of the fastening element, and will be located as near as possible to the center of the board. A sliding point is one whose hole is larger than the fastener, at least 3 mm more per meter of board, taken from the fixed point. The diameter of the fastener will be large enough to cover the hole, and will be attached in such a way as to allow the movement of the board, without tightening the screw too much.

#### Maximum fastener distances

Maximum distance to the board edge - 10 mm.

Maximum distance between fasteners:

600 mm for 8 mm board thickness, and 800 mm for 13 mm board thickness.



# SPECIFIC RECOMMENDATIONS

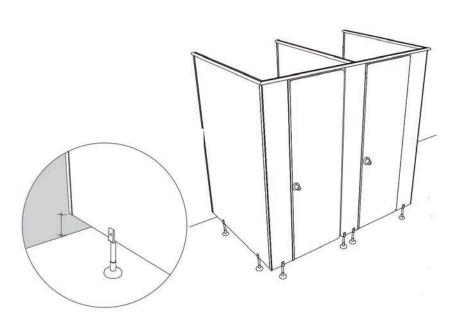
Compacmel Plus boards are suitable for installation as paneling in areas requiring intensive cleaning, for their mechanical and surface properties; and are suitable for the manufacture of sanitary cabins and bathrooms dividers, thanks to their moisture resistance and easy-to-clean surfaces.

# Sanitary Cabins

In general, the board should not be permanently exposed to standing water, either during use or during construction and assembly. To prevent this from happening, it should have support legs to prevent direct contact with the ground, and with height adjustment to compensate for floor surface unevenness. around the panels to ensure good performance.

Edges and all exposed areas should be sealed.

It should facilitate unhindered air circulation



"The recommendations contained herein are only for general information purposes. It is recommended to always turn to professional experienced installers that know the design and regulatory requirements applicable in each case, for the correct installation of Compace Plus."

# EDGE SEALING RECOMMENDATIONS



# EDGE SEALING RECOMMENDATIONS FOR COMPACMEL PLUS WITH RENNER SEALANT FI---M192

## DESCRIPTION

### MAINTENANCE

Sealant FI ---M192----- is a two-component transparent sealer formulated with polymers endowed with highly insulating, moisture-resistant, climate change properties. This polyurethane sealant creates a protective high-strength film, with strong adhesion to the substrate, and high physical and chemical resistance.

For maintenance and depending on the type of exposure the board shall be subject to, it is recommended that a new coat of FI --- M192 be applied annually from the 2nd year, while sanding the old paint film beforehand using 220 -240 grit sanding, in order to ensure that the properties remain unchanged throughout the board's service life.

# APPLICATIONS

1. Beforehand, prepare the substrate with 180 grit sanding, then clean all the sanding residues. Before applying the product, the surface must be free from dust or grease.

2. Preparation of the mixture depends on the application method:

APPLICATION METHOD	MIXING RATIO	
GUN / ROLLER	Fl M192/ (sealant) <b>1</b> FCM192/ (catalyst) <b>5</b>	

3. Once the mixture is ready for application, the following recommendations shall be taken into account:

No. of coatings			Max. 3
Recommended coating	amount	per	Max.: 50g/m2
Interval between o	coatings		Max.: 1 hour
Lifetime of the mi	xture		4 hours

For more information: www.renneritalia.com

# TECHNICAL TESTS

Tests performed by AIDIMA mentioned in Standard UNE EN 263:2002 have enabled a better assessment of board edge behaviour to changing temperature and humidity conditions, resulting from the application of edge sealant. FINSA recommends the use of edge sealants in humid environments (e.g. sanitary cabins).

The information in this section is for general recommendations based on experiments. It is up to the end users to verify if this product suits their needs, regarding the type of instruments to be used, and the environmental application conditions.

# HARDWARE RECOMMENDATIONS 1/2

## HARDWARE

There is a wide range of hardware available in the market. Compacmel Plus is generally compatible with standard fittings available for wood panels or phenolic compact.

Following are some recommendations on hardware, fittings, and other complementary items, sold by some of the reference multinational companies in the sector, structured by type of application.

It is recommended to follow the instructions and advice set forth by hardware manufacturers, and to consult them for further information and advice. For more information, please visit the following reference websites:

Grass: www.grass.eu

Häfele: www.hafele.de

Hettich: www.hettich.com

#### HINGES



TIOMOS M9 Manufacturer: GRASS Door thickness from 12 mm Opening angle 110°



TIOMOS MO Manufacturer: GRASS Door thickness from 6 to 10 mm. Opening angle 125°.



SPECIAL STAINLESS STEEL HINGES

Manufacturer: HÄFELE. For 13mm body thickness, and thin doors 10-13mm thick. Opening angle 240°.



PIANO STAINLESS STEEL HINGES Manufacturer: HÄFELE.



SENSYS Manufacturer: HETTICH Hinge with 8mm cup. With brake.



#### PANELS



#### KEKU UNION HARDWARE SYSTEM

Manufacturer: HÄFELE. Suspended mounting hardware.

#### PANEL MOUNTING SYSTEM

Manufacturer: HÄFELE. The panel mounting system is used for wall coating. The basic structure is built with suspension profiles.

#### FURNITURE LOCKING SYSTEMS



DIALOCK Manufacturer: HÄFELE. Door thickness from 13 to 19 mm. Electronic locking system (access control).



HORIZONTAL AND VERTICAL SUSPENSION

#### SYM0

PROFILES

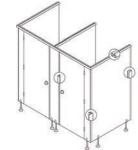
Manufacturer: HÄFELE.

Manufacturer: HÄFELE. Closing system with interchangeable core cylinder.

EILOX SUSPENSION PROFILES

Same profile for wall and construction piece.

Manufacturer: HÄFELE.



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#### SYSTEM

Manufacturer: HÄFELE.

- Top profile
- Wall terminating profile
- Edge terminating profile
- Doorstop profile
- Forked leg
- Rotating knob with latch
- Aluminum screwing hinge

Only applicable to 13mm board thickness.

# SANITARY CABINS

# HARDWARE RECOMMENDATIONS 2/2

#### DRAWER SLIDES

#### DOUBLE-WALL DRAWERS



#### TABLE V6

Manufacturer: HETTICH Total extraction sliding and concealed under the drawer bottom. Mounting by sliding.

#### SLIDING DOOR SYSTEMS



#### INNOTECH / INNOTECH ATIRA

Manufacturer: HETTICH Double-wall drawers. Program based on platform concept.



#### ARCITECH

Manufacturer: HETTICH Double-wall drawers for heavy fronts. Program based on platform concept. Full-extension slides.



TOPLINE M Manufacturer: HETTICH For top-hung sliding door. Position of overlapping door. Max. weight: 35kg.

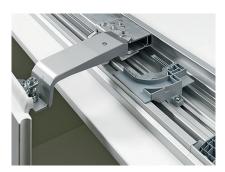


#### TOPLINE L

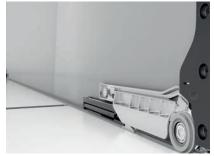
Manufacturer: HETTICH For top-hung sliding door. Position of overlapping door. Max. weight: 50kg.



TOPLINE XL Manufacturer: HETTICH For top-hung sliding door. Position of overlapping door. Max. weight: 80kg.



INLINE XL Manufacturer: HETTICH For top-hung sliding door. Position of flushmounted door. Max. weight: 60kg.



SLIDELINE M Manufacturer: HETTICH For bottom-rolling sliding door. Position of overlapping door. Max. weight: 30kg.

# CERTIFICATIONS

# STANDARDS AND CERTIFICATIONS



## ANTIBACTERIAL MARKING

Antibacterial surface according to ISO Standard 22196: 2011 certifying that the product offers benefits that inhibit the growth and development of bacteria.



## FIRE-RETARDANT BOARD

European Standard EN 13501-1 "Classification based on fire performance of construction products and building elements."



European Standard EN 622-5. Requirements for general-purpose boards in humid environments.

CE

CE

CE Mark in accordance with European Standard EN 13986 certified by AENOR.





FSC <sup>®</sup> certification guarantees the consumer that forest products come from rationallymanaged forests, according to the Principles and Criteria of the Forest Stewardship Council.

For more info: www.fsc-spain.org



Forest Management Certificate PEFC/1435-00006. PEFC is an independent, non-governmental and non-profit entity whose aim is to promote sustainable forest management worldwide.

For more info: www.pefc.org



# COMPAC PLUS

#### DOWNLOAD THE COMPLETE TECHNICAL DATA SHEET



	TEST DRODEDTY THICKNESS (mm)				
TEST	PROPERTY		>6 a 12	>12 a 16	UNITS
EN 323	Density (Indicative information)	6 >1000	>1000	>1000	kg/m <sup>3</sup>
EN 319	Internal bond	1,8	1,8	1,8	N/mm <sup>2</sup>
EN 310	Bending strength	55	55	55	N/mm <sup>2</sup>
EN 310	Modulus of elasticity	5000	5000	5000	N/mm <sup>2</sup>
EN 317	Thickness swelling in 24h	7	7	5	%
EN 318	Dimensional stability. Length / Width	≤0.40	≤0.40	≤0.40	%
EN 318	Dimensional stability. Thickness	≤6	≤6	≤6	%
EN 311	Surface soudness	1,7	1.7	1.7	N/mm <sup>2</sup>
EN 382-1	Surface absorption (both sides)	>150	>150	>150	mm
EN 322	Moisture content	7±3	7±3	7±3	%
ISO 3340	Silica content	≤ 0,05	≤ 0,05	≤ 0,05	% by weight
EN ISO 12460-5	Formaldehyde content	< 8	< 8	< 8	mg/100 g
EN 13329	Edge swelling	18	15	13	%
EN 13986:2004	Reaction to fire (*)	D-s2,d2 (**)	D-s2,d2 (**)	D-s2,d2 (**)	Euroclass
EN 321/EN 317	Accelerated aging test (opt. 1) Swelling after cyclic test (V313)	12	12	12	%
EN 321 / EN 319	Accelerated aging test (opt.1) Internal bond after cyclic test (V313)	0,4	0.40	0.40	N/mm <sup>2</sup>
EN 1087-1 EN 319	Accelerated aging test (opt.2) Internal traction after cooking test (V100)	0.20	0.20	0.20	N/mm²
TOLERANCE IN NOM					
EN 324-1	Thickness	+/-0.20	+/-0.20	+/-0.20	mm
EN 324-1	Length and width	+/-0.20	+/-0.20	+/-0.20	mm
EN 324-2	Squareness	+/- 2 mm/m max 5 mm	+/- 2 mm/m max 5 mm	+/- 2 mm/m max 5 mm	mm/m
EN 324-2	Edge straightness	+/- 2,0	+/- 2,0	+/- 2,0	mm/m

(\*) For confined air gap or outdoor air gap below or equal to 22mm behind the COMPAC PLUS  $\geq$ 9 mm. E classification for any other use / thickness condition. According to decision 2007/348/EC.

These physical and mechanical values meet/improve the values set forth under European Standard EN 622-5:2009, Table 4. Requirements for generalpurpose boards in humid environments (Type MDF.H). COMPAC PLUS meets the Class E1 requirements (analyzed according to Standard EN 120) set forth under European Standard EN 622-1:2003.

# **COMPACMEL PLUS**

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TEST	PROPERTY			THICKNESS ( 6-16	mm)	UNITS
EN 323	Density (indicative information)			>1000		ka/m <sup>3</sup>
EN 319	Internal bond			1.8		N/mm <sup>2</sup>
EN 310	Bending strength			55		N/mm <sup>2</sup>
EN 310	Modulus of elasticity			5000		N/mm <sup>2</sup>
EN 317	Thickness swelling in 24h			≤1		%
EN 318	Dimensional stability. Length / Width			≤0,4		%
EN 318	Dimensional stability. Thickness			≤6		%
EN 311	Surface soudness			≥1,7		N/mm <sup>2</sup>
EN 322	Moisture content			7±3		%
ISO 3340	Silica content			≤0.05		% by weight
EN ISO 12460-3	Formaldehyde emission			≤3,5 (Clase	E1)	mg/m <sup>2</sup> h
EN 13329	Edge swelling			≤7		%
EN 13986:2004	Reaction to fire (*)			D-s2, d2 (*	*)	Euroclass
EN 321/EN 317	Accelerated aging test (opt. 1) Swelling after cyclic t	est (V313)		≤2		%
EN 321 / EN 319	Accelerated aging test (opt.1) Internal bond after cy	clic test (V31	3)	≥0.60		N/mm <sup>2</sup>
EN 1087-1 EN 319	Accelerated aging test (opt.2) Internal traction after	cooking test	(V100)	≥0.20		N/mm <sup>2</sup>
TOLERANCE IN NOM	IINAL DIMENSIONS	0				
EN 324-1	Thickness			± 0.30		mm
EN 324-1	Length and width			+/- 2 mm/r max 5 mm	n	mm
EN 324-2	Squareness			± 2		mm/m
EN 324-2	Edge straightness			± 1.5		mm/m
COATING						
UNE-EN 14323	Resistance to scratching			≥2		n
UNE-EN 14323	Resistance to cracking			4		degree
UNE EN 14323	Resistance to staining (group 3)		4		degree	
UNE-EN 14323	Resistance to dry heat			4		degree
UNE-EN 14323	Resistance to impact		1500		mm	
VISUAL DEFECTS	· ·					
UNE-EN 14323	Edge damage			≤10 (**) ≤3(*	***)	mm/m
UNE-EN 14323	Visual defects. Points			≤2		mm²/m²
UNE-EN 14323	Visual defects. Scratches	cts. Scratches		≤20		mm/m <sup>2</sup>
	Abrasion resistance	Class	IP nu	mber of turns	V	VR number of turns
	1 101000111000000100	01400			V	

UNE-EN 14323	Abrasion resistance. Designs (inc. metallic)	1	<50	<150
UNE-EN 14323	Abrasion resistance. Solid colours	ЗA	>150	>350
(*)				C 11 / 11 / 1

(\*) For confined air gap or outdoor air gap below or equal to 22mm behind the COMPACMEL PLUS  $\geq$ 9 mm. E classification for any other use / thickness condition. According to decision 2007/348/EC.

#### (\*\*) Commercial dimensions. (\*\*\*) Boards cut to size.

These physical and mechanical values meet/improve the values set forth under European Standard EN 622-5:2009, Table 4. Requirements for generalpurpose boards in humid environments (Type MDF.H). COMPACMEL PLUS meets the Class E1 requirements (analyzed according to Standard EN 120) set forth under European Standard EN 622-1:2003.

# TECHNICAL DATA SHEETS

# COMPAC PLUS FIRE-RETARDANT

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TEST	PROPERTY	THICKNESS (mm)	THICKNESS (mm)	UNITS		
TLUT		8 -12	>12 -13	UNITO		
EN 323	Density (indicative information)	1050	1050	kg/m³		
EN 319	Internal bond	1.8	1.8	N/mm²		
EN 310	Bending strength	45	45	N/mm²		
EN 310	Modulus of elasticity	4000	4000	N/mm²		
EN 317	Thickness swelling in 24h	8	6	%		
EN 318	Dimensional stability. Length / Width	0.4	0.4	%		
EN 318	Dimensional stability. Thickness	6	6	%		
EN 311	Surface soundness	1.7	1.7	N/mm²		
EN 382-1	Surface absorption (both sides)	>150	>150	mm		
EN 322	Moisture content	7±3	7±3	%		
ISO 3340	Silica content	< 0.05	< 0.05	% by weight		
EN ISO 12460-5	Formaldehyde content	≤8 ( E1 Class)	≤8 ( E1 Class)	mg/100 g		
EN 13329	Edge swelling	15	15	%		
EN 13501-1	Reaction to fire	B-s1,d0	B-s1,d0	Euroclass		
EN 1007 1 EN 010	Accelerated aging test (opt.2)	0.00	0.15	N/mm²		
EN 1087-1 EN 319	Internal bond after cooking test (V100)	0.20	0.15			
TOLERANCE IN NOMINAL DIMENSIONS						
EN 324-1	Thickness	± 0.20	± 0.20	mm		
EN 324-1		+/- 2 mm/m	+/- 2 mm/m			
	Length and width	max 5 mm	max 5 mm	mm		
EN 324-2	Squareness	± 2	± 2	mm/m		
EN 324-2	Edge straightness	± 1.5	± 1.5	mm/m		

These physical and mechanical values meet/improve the values set forth under European Standard EN 622-5:2009, Table 6. - Requirements for generalpurpose structural boards in humid environments (Type MDF.HLS). FIRE-RESISTANT COMPAC PLUS meets the Class E1 requirements (analyzed according to Standard EN 120) set forth under European Standard EN 622-1:2003, and has EC certification issued by AENOR.

# **COMPACMEL PLUS FIRE-RETARDANT**

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		THICKNESS				
TEST	PROPERTY			(mm)	UNITS	
		8 -13				
EN 323	Density (indicative information)			>1050	kg/m <sup>3</sup>	
EN 319	Internal bond			1.8	N/mm <sup>2</sup>	
EN 310	Bending strength			45	N/mm <sup>2</sup>	
EN 310	Modulus of elasticity			4000	N/mm <sup>2</sup>	
EN 317	Thickness swelling in 24h			2	%	
EN 318	Dimensional stability. Length / Width			0.4	%	
EN 318	Dimensional stability. Thickness			6	%	
EN 311	Surface soundness			1.7	N/mm <sup>2</sup>	
EN 322	Moisture content			7±3	%	
ISO 3340	Silica content			< 0.05	% by weight	
EN ISO 12460-3	Formaldehyde emission			$\leq$ 3,5 (E1 Class)	mg/m <sup>2</sup> h	
EN 13329	Edge swelling			10	%	
EN 13501-1	Reaction to fire	B-s1,d0	Euroclass			
EN 1087-1 EN 319	EN 1087-1 EN 319 Accelerated aging test (opt.2) Internal traction after cooking test (V100)					
EN 1087-1 EN 319 Accelerated aging test (opt.2) Internal traction after cooking test (V100) 0.20 N/mm <sup>2</sup> TOLERANCE IN NOMINAL DIMENSIONS						
EN 324-1	Thickness			± 0.30	mm	
EN 324-1	Length and width			+/- 2 mm/m	mm	
EN 324-2	Squareness	± 2	mm/m			
EN 324-2	Edge straightness			± 1.5	mm/m	
COATING						
UNE-EN 14323	Resistance to scratching			≥2	n	
UNE-EN 14323	Resistance to cracking			4	degree	
UNE EN 14323	Resistance to staining (group 3)			4	degree	
UNE-EN 14323	Resistance to dry heat	4	degree			
UNE-EN 14323	Resistance to impact			1500	mm	
VISUAL DEFECTS						
UNE-EN 14323	Edge damage	≤10 (*) ≤3(**)	mm/m			
UNE-EN 14323	Visual defects. Points	≤2	mm <sup>2</sup> /m <sup>2</sup>			
UNE-EN 14323	Visual defects. Scratches	≤20	mm/m <sup>2</sup>			
	Abrasion resistance	NS WR num	ber of turns			
UNE-EN 14323	Abrasion resistance. Designs (inc. metallic)	Class 1	IP number of turr <50		150	
UNE-EN 14323	Abrasion resistance. Solid colours 3A >150			>350		
UNL-LIN 14JZJ		JA	/100		000	

(\*) Commercial dimensions. (\*\*) Boards cut to size. These physical and mechanical values meet/improve the values set forth under European Standard EN 622-5:2009, Table 6. - Requirements for general-purpose structural boards in humid environments (TYPE MDF.HLS). FIRE-RESISTANT COMPACMEL PLUS meets the Class E1 requirements (analyzed according to Standard EN 120) set forth under European Standard EN 622-1:2003, and has EC certification issued by AENOR.









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