Finsa
Design

Compacmel Plus E-Z

The wood compact

The wood compact

Compacmel Plus E-Z arises from our firm commitment to technological development and innovation, diversifying our range to offer solutions for the most demanding projects.

Index

Features and applications

A solution in wood specially designed to be used in interior environments with high humidity or applications that require high resistance.

Characteristics

Compac Plus E-Z is a high-density wood fibreboard (>1000 kg/m3), with excellent physical-mechanical properties. With a wide range of timeless and trendy designs, Compacmel Plus E-Z also offers a coating with highly resistant decorative papers.

Applications

- Sports facilities: ticket offices, dressing rooms, benches...
- Commercial facilities: fitting rooms, counters...
- Cultural facilities: cloakroom, luggage room...
- Air and ground transportation facilities
- School and office furniture: shelves, tables, desks...
- Kitchen furniture: countertops
- Hospital equipment: tables, beds, cabinet doors...
- Equipment in hotels and catering
- Equipment in common areas of buildings
- Storage: cupboards, shelves...
- Suspended partitions for public toilets
- Panelling
- Doors

01/

Environmentally friendly: Sustainable and recyclable material E05 / CARB2

Excellent mechanical properties (resistance to bending, internal bond, impact resistance...) and dimensional stability

Wide range of coatings
Versatility of designs

Easy to machine (cutting and drilling) and installation, and low tool wear.
Standard tools and hardware

High resistance to humidity (passes V313 and V100 tests)

Excellent quality / cost ratio

Antibacterial surface

Fire retardant quality available

Sustainability

02/

At Finsa we think responsibly and manufacture all our products in compliance with the most demanding environmental standards and certifications.

Certifications

Environmental Product Declaration

Document that communicates the environmental impact of a material during its life cycle, from the raw material extraction process, transport to the manufacturing plant and product manufacturing process.

Cradle to Cradle

Multi-attribute certification, directly linked to Sustainable Development Goals (SDGs), demonstrating that a product is safe and circular.

The Material Health Certificate

This is a materials analysis based on the Cradle to Cradle standard health assessment methodology. This certification seeks to promote healthier and safer products.

Forestry certifications

PEFC

PEFC chain-of-custody certification provides a verified and independent guarantee that products with the PEFC label contain certified forest material from sustainably managed forests.

FSC®

We have implemented a FSC® chain of custody certification system that allows us to supply certified wood products to customers which are 100% recyclable and contribute greatly to the fight against climate change. This forestry certification promotes certified wood, and to this end we certify our farms and help our suppliers achieve certification.

EUTR

As a sign of transparency, we voluntarily certify compliance with EU regulation 995/2010 regarding the legal origin of wood.

ISO 38200

This is an internationally recognised standard for the transmission of information along the supply chain of wood and wood-derived products.

Sustainable building certifications

BREEAM, LEED, WELL and LBC

Our wood solutions help meet the requirements of sustainable building certifications.

Antibacterial

03/

The growing demand for products that prevent the development of bacteria that can be harmful to health has led us to work on researching materials that meet these requirements.

As a result of this work, Finsa has developed surfaces with antibacterial properties with its own resources.

The surface of Compacmel Plus E-Z has been tested by the external laboratory, the IMSL (Industrial Microbiological Services) of the United Kingdom, following the procedure indicated by the ISO 22196: 2011 Standard, verifying that our Compacmel Plus E-Z offers features that inhibit the growth and development of bacteria without impairing the characteristics of the covering.

The board has been tested with bacteria:

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

- *E. coli*, which can cause diarrhea and intestinal problems.

Analysis certificate no. 1023308. 1E-1 — Issued by IMSL

Method: Determination of antibacterial activity using ISO 22196: 2011

Results (AS CFU CM -2)

Sample

IMSL
INDUSTRIAL MICROBIOLOGICAL SERVICES LTD

	Contact	Contact	Time	Reduction	Log % difference
Compacmel Plus E-Z	*E. coli*	1.7E+04	≤1.0	≥4.2	>99.99%
	S. aurius	2.0E+04	≤1.0	≥4.3	>99.99%

The above data shows the difference between the initial population of bacteria after contact with the surface of the referenced samples for 24 hours at 35 ºC and 95% relative humidity.

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

04/ Technical results

The Metal-Mechanical, Furniture, Wood, Packaging and Related Technological Institute (AIDIMME) is a non-profit association established in 1984, which has one of the best Technological Institutes in Europe. A complete characterization of Compacmel Plus E-Z has been carried out in its laboratories, with evaluation of both the properties of the support and its covering.

The Compacmel Plus E-Z product tested meets the requirements set forth in the following standards, applicable to kitchen and bathroom furniture:

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

Thermal conductivity

Thanks to its good thermal conductivity values, Compacmel Plus E-Z is a perfect product for wall cladding, since it substantially improves thermal insulation and thus reduces energy consumption.

Evaluation of the resistance of the covering. Reference White SR209

Characteristics	Standard		HPL standard requirement	Compacmel Plus E-Z
Appearance	UNE 56 867	Assessment	Zero defects	Zero defects
Stain resistance	EN 468-4	Group 1 agents. Assessment	≥5	5
		Group 2 agents. Assessment	≥5	5
		Group 3 agents. Assessment	≥4	5
Stain resistance. Kitchen furniture. Work spaces	UNE 56 842	Assessment	≤1	0
Stain resistance. Bathroom furniture. Toilet spaces	UNE 56 867	Colour assessment	≥4	5
		Gloss assessment	≥3	5
Abrasion resistance	UNE 438-4	Initial point IP (cycles)	≥150	900
		Resistance (cycles)	≥350	1150
Resistance to ball drop	UNE 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 resistance. Colour / gloss assessment	UNE 56 867	Colour. Assessment	≥4	5
		Gloss. Assessment	≥4	5
Resistance to dry heat at 180 °C	UNE 56 867	Colour. Assessment	≥4	5
		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

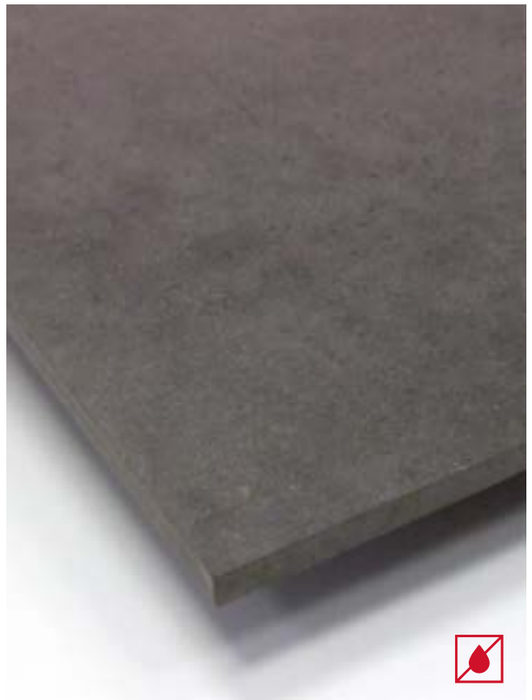
In tests conducted by AIDIMA, the product's resistance to changing temperature and humidity conditions was assessed.

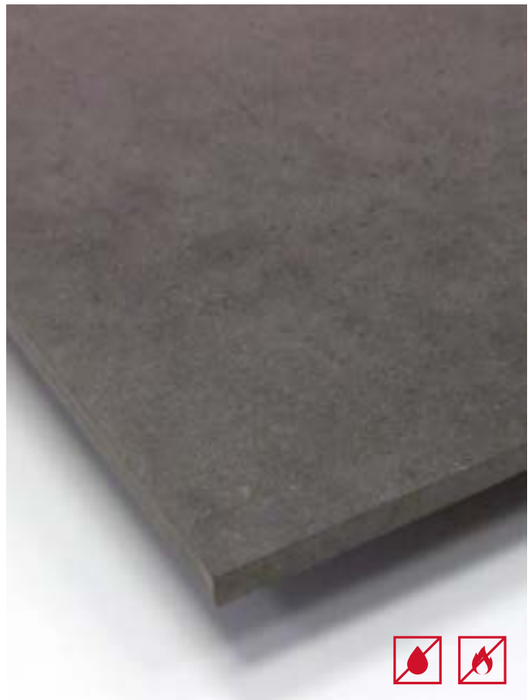
The following tests were conducted, whose results are shown below:

Hot water resistance **EN 263 standard**	100 cycles · 60°C · 30 min · 20°C · 30 min	Longitudinal increase 0.27% Thickness increase 6.3%
Thermal stability **EN 263 standard**	200ºC · 20 min	Longitudinal increase -0.1 mm/m Thickness increase -0.80%
Thermal shock cycles **UNE 48025 standard**	40 cycles · 60°C -20°C 20°C · 60 min 60 min 15 min	No deeffects
Dimensional stability at high temperature **UNE 438 standard**	70°C · 24 h · 40°C · 90% · 96 h	Longitudinal increase 0.37% Thickness increase 0.38%
Dimensional stability to humidity changes **UNE 318 standard**	20°C · **I.** 30% - 65% - 85% **II.** 85% - 65% - 30%	Longitudinal increase 0.22% Thickness increase 0.33%

Time · Temperature · Submerged in water · Relative humidity · Results · Test

Product range





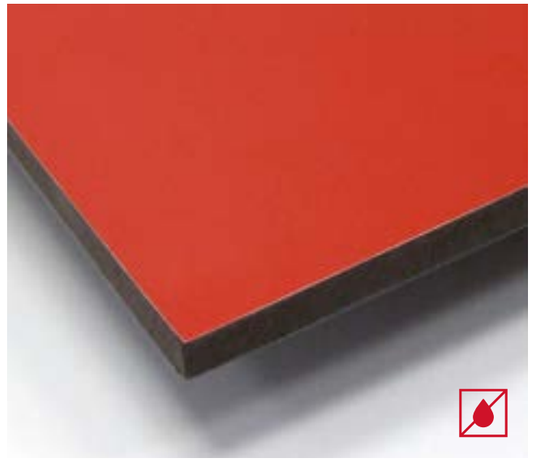
Compac Plus E- Z

Range

Product	Size (mm)	Thickness (mm)
Compac Plus E-Z*	2 850 × 2 100	8, 10, 12, 13
Compac Plus Fire retardant E-Z*	2 850 × 2 100	8

Consult our commercial network for more information.
* Also available on request:
Compac Plus E-Z in thicknesses from 6 to 19 mm
Compac Plus Fire retardant E-Z in thicknesses from 8 to 19 mm

05/



Compacmel Plus E- Z

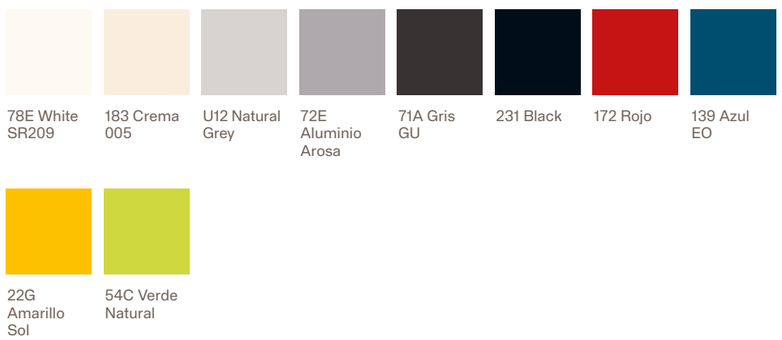
Range

Product	Size (mm)	Thickness (mm)
Compacmel Plus E-Z	2 850 × 2 100	8, 10, 12, 13
Compacmel Plus Fire retardant E-Z	2 850 × 2 100	8

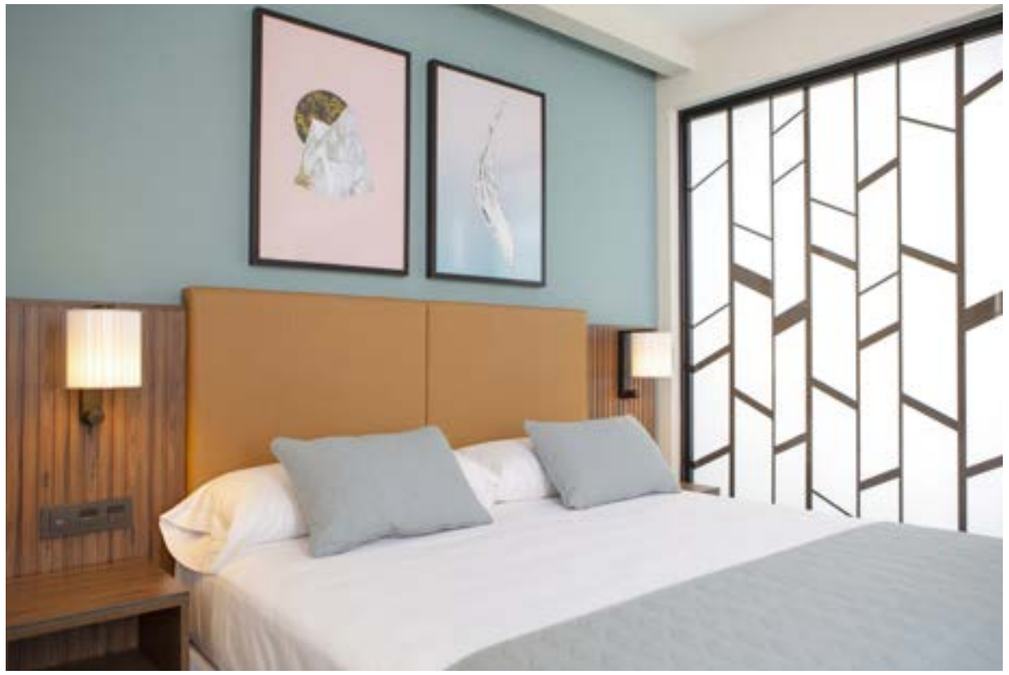
Packaging: in Duo and Blanco Super designs, Soft III finish
Consult our commercial network for more information.

Designs

Available finish:
Soft III
This selection of designs is available from one board.



Projects



Hotel RIU Plaza España
RIU

Madrid
2019

Compacmel Plus E-Z
Nogal Victoria Soft III

Room furniture

Hospitality

06/

Olimpo Studio
Central Arquitetos /
JOM investimentos

Porto
2022

Compacmel Plus
Natural Grey Soft III

Kitchen furniture
and countertops

Hospitality

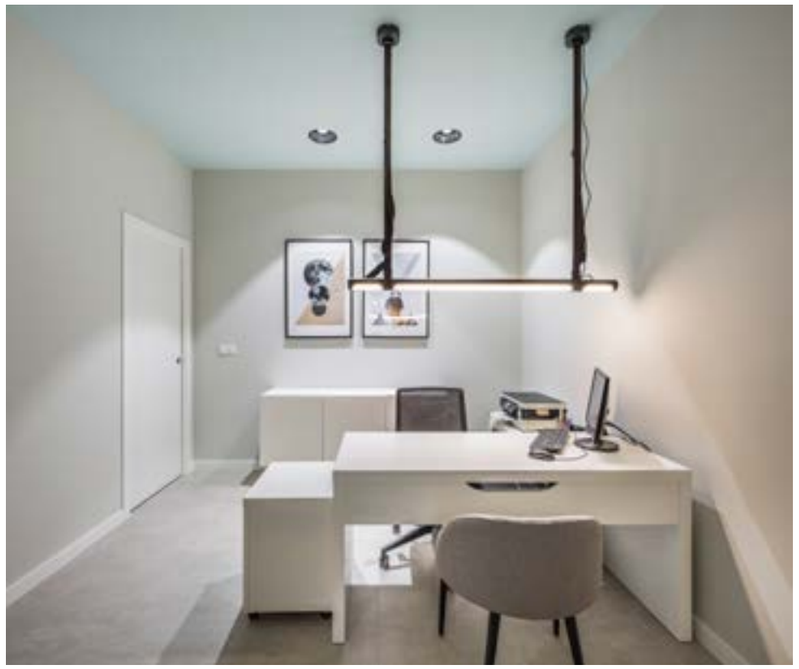
Dental clinic
Nathalie Guillen
Dobleese Space & Branding

La Pobla de Farnals
(Valencia)
2019

Compacmel White
SR209 Soft III

Countertops and tops of
the cabinets and office.

Retail



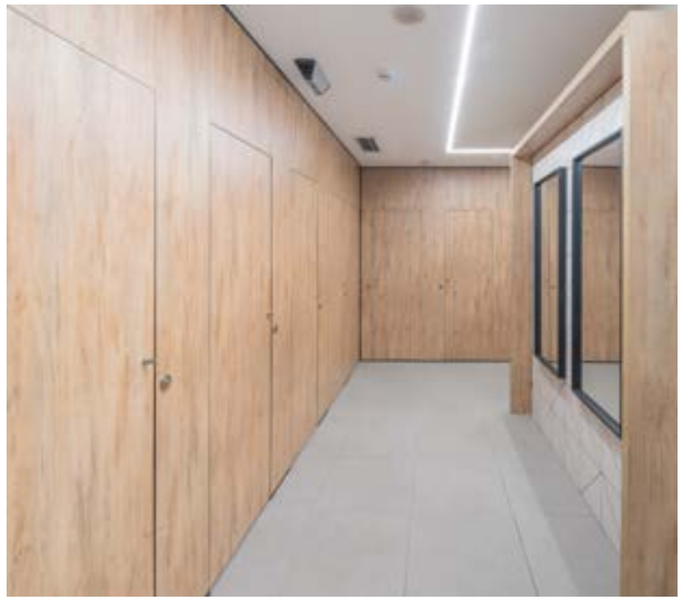
Shopping mall La Vital
Estudio Cabana

Gandía (Valencia)
2021

Compacmel Plus White
SR209 Soft III and
Playa Wood Soft III

Paneled hallways
and bathrooms

Retail



Improven Consulting
Dobleese Space & Branding

Valencia 2019

Compamel White
SR209 Soft III

Desk worktops

Workplace

Offices for rent in building LH135
Opta Arquitectos

Madrid
2020

Compacmel Plus E-Z Gris Tortora Soft III , Gris Coco Soft III and Aluminio Soft III

Toilet cabins

Workplace

Technical information

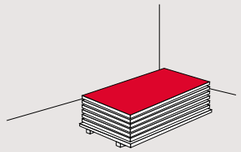
07/

These technical data are indicative. Due to the continuous development of the product and the standards by which it is governed, some parameters may be modified. For more information consult the website **finsa.com**

07.1/ Technical recommendations

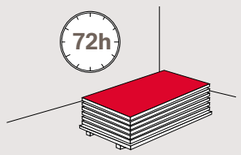
Proper board storage and packaging prevents undesirable deformations, and helps preserve flatness.

Storage



- Must be stored in closed, ventilated and dry places, protected from the sun, rain, frost and splashes of chemical products, in compact piles.
- The pallets should be placed on a level and flat surface, and the boards should be kept packed in conditions similar to those of the original packaging for the proper maintenance of their properties. When the packages are stacked, the vertical alignment of the supports is recommended to avoid deformations.
- Avoid that the board is subjected to differentiated humidity and temperature conditions on each of its faces, as well as storage for long periods.
- Humidity oscillations are more pronounced at the edges, so its protection through correct packaging, and even its sealing under changing environmental conditions, is especially important.

Acclimatization



- Wood and any board derived from it, due to its hygroscopic properties, captures and releases moisture from the surrounding environment, depending on the temperature and humidity conditions of said environment, which causes dimensional variations.
- The prior conditioning of the boards is recommended. Before its processing, it is recommended to acclimatize it to the environment for at least 72 hours before its use.
- In the case of installation on site (cladding, room dividers, etc.), the boards must be stabilized at the installation site to achieve balance and minimize dimensional variations once installed.
- The cutted pieces must be correctly stored and in the case of installation, they must be stabilized prior to installation in the same place of installation.

Handling

- The product must be handled with due precautions, the same as any board coated with decorative paper, avoiding intense friction between the faces that could cause damage to the decorative surface.
- It is recommended to use protective measures such as gloves when handling the parts.

Cleaning

- The product can be cleaned with a damp cloth and a neutral cleaning agent in small doses. Abrasive elements and excessively acidic or basic solutions must be avoided. Avoid prolonged exposure to wet surfaces and/or direct contact with water.

Cutting and machining

- For cutting and machining the board, the usual tools for other boards derived from wood can be used, although parameter adjustments (cutting speed, feed rate) may be necessary for a good final finish. If you wish to increase tool life, the use of diamond-tipped cutting tools is recommended.
- The characteristics of the product allow its machining and use at visible edge.
- It is recommended to consult your usual tool supplier for more information and advice.

Fittings

- In the market you can find a wide range of fittings available. Compacmel Plus E-Z is generally compatible with the standard fittings available for wood or compact phenolic boards.
- It is recommended to respect the indications and advice marked by the hardware manufacturer and consult them for more information and advice.

07.2/ Installation recommendations

General indications

Compac Plus E-Z and Compacmel Plus E-Z are boards for **indoor** use only.

The material must be dry and should **never** be exposed to, or come in contact with standing water, not even during the assembly process.

- The technical specifications referring to dimensional variations must be observed when designing the installation, considering expansion joints in the case of panelling, or adequate tolerances in the case of rebates. Likewise, when fixings are used, adequate dimensional variations must be allowed during the life of the installation.

• To guarantee expansion, there will be a minimum joint between boards of 4 mm/linear m of board.

• There must not be more than one single fixed point in the entire mounting unit, the rest of the fixing points must allow movement (fixed point rule).

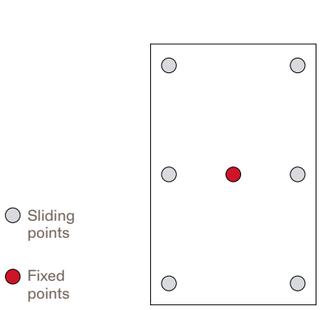
- Finsa always recommends sealing edges and exposed areas. The application of sealants on edges improves the behavior of the board against changing conditions of temperature and humidity.

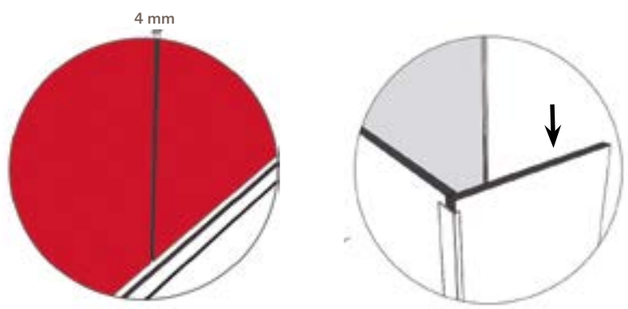
- In case of using adhesives, they must be flexible to allow movement of the panels.

- In the case of using countersunk screws, they will be placed with support rosettes. If it is a round head screw, it will cover the slide hole.

- It is important to guarantee good ventilation in the spaces or areas where the boards are installed, even during use.

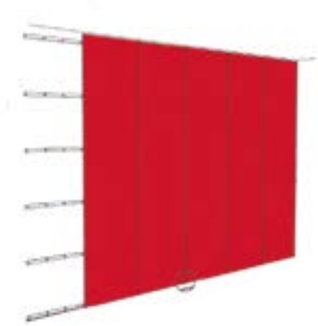
- For decorative purposes, wax, oil or Vaseline can be applied to the visible edge to enhance its colour.





Specific recommendations

Compacmel Plus E-Z is an ideal board for installation as panelling in areas that require intensive cleaning, due to its mechanical and surface properties; as well as suitable for the manufacture of sanitary cabins and bathroom partitions, thanks to its resistance to humidity and an easy-to-clean surface.



Wall cladding

Compacmel Plus E-Z is ideal for ventilated wall panel cladding, in which the board is fixed to a substructure which is in turn fixed to the brick, concrete or wooden wall, ensuring proper ventilation and air recirculation.

It should always be mounted on a substructure, never directly on the wall, even when completely flat. 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 by using strips of board, wood, steel or aluminum, and be made up of horizontal and/or vertical profiles (battens).

Expansion joints must be left in the joint areas between boards, at least 4 mm/ml, and between the board and other elements of the structure (eg columns), allowing possible dimensional variations.

Compacmel Plus E-Z can be attached to the substructure by:

- Visible fasteners, using screws or rivets from the visible side to the substructure.

- Concealed fixings, with hanging aluminum clamps or adhesive ribbons on the back of the board that are fixed or attached to the substructure, following the recommendations defined above (general indications).

In the case of mounting on horizontal hanging rails, these should be positioned discontinuously in such a way as to guarantee vertical ventilation between the board and the wall, and in turn, they must allow the panel to slide on them due to possible dimensional variations.

The fixings will be adapted to the weight of the panel.

For cladding with visible mechanical fixings

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 fixings, 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.

Fastener distances

- Minimum 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.

The recommendations contained herein are only informative and of a general nature. It is always recommended to use experienced professional installers, who are familiar with the regulatory and design requirements applicable in each case, for the correct installation of Compacmel Plus.

Toilet cabins

In general, the board should not be permanently exposed to standing water, neither during use, nor during the construction and assembly process. To prevent this from happening, support legs must be placed to avoid direct contact with the ground and with height adjustment to compensate for unevenness in the surface of the ground.

Unhindered air circulation around the panels should be facilitated to ensure good performance. Adequate and sufficient ventilation should be provided to let humidity release and facilitate the drying of the area where they are installed.

This board is not recommended for use as a partition or liner for showers.

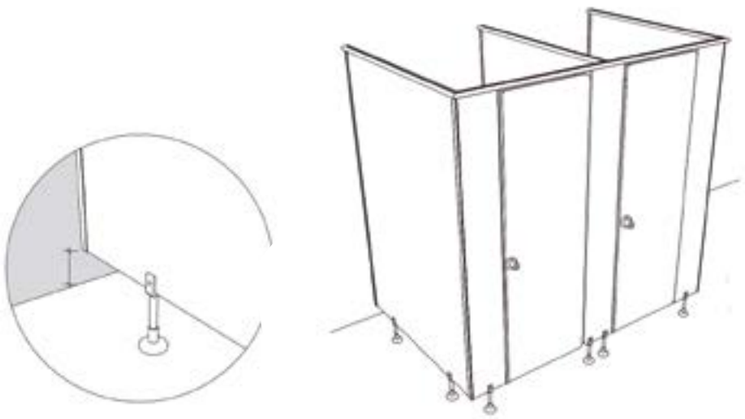
Edges and all exposed areas should be sealed.

Furniture

Conventional fittings can be used, although in many cases it will be necessary for them to adapt to thin thicknesses.

A minimum thickness of the board should be ensured to guarantee the grip of the screw. The diameter of the hole should be greater than the diameter of the screw or rivet to allow movement.

Special attention should be paid to ensuring proper ventilation of the area where the furniture is located or even inside it (eg inside lockers).



07.3/ Edge sealing recommendations

The information collected in this section corresponds to general recommendations based on experiences. It will be up to the end user to verify if this product meets their needs, in relation to the type of instrument to be used and the environmental conditions of application.

Recommendations for sealing the edges of Compacmel Plus E-Z with sealant Renner FI---M192

Description

FI---M192----- sealant is a transparent two-component sealant formulated with polymers with highly insulating properties, resistant to humidity and temperature changes. This polyurethane sealant creates a protective film with high resistance, adherence to the support and high physico-chemical resistance.

Maintenance

For its maintenance and depending on the exposure to which the board is subjected, it is recommended to give a new coat of FI---M192 every year, starting from the 2nd year, previously sanding the old varnish film with 220 grit sandpaper. -240, in order to guarantee its unalterable properties throughout the useful life of the board.

Application

1. Previously, the substrate will be prepared by sanding with 180 grit, followed by cleaning the sanding residue. Before applying the product, the support must be free of dust or grease.

2. The preparation of the mixture will be carried out depending on the application method used:

Application method	Mixing ratio	
Gun / Roller	FI---M192/----- (sealant)	1 part
	FC---M192/---- (catalyst)	5 parts

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

Nº of coatings	Max. 3
Recommended amounts per coating	Max. 50g/m2
Interval between coating	Max. 1 hour
Pot life of the mixture	4 hours

For more information: **renneritalia.com**

Technical tests

Tests carried out by AIDIMME, indicated in the UNE EN 263:2002 standard, have allowed to evaluate a better behavior of the board in edges against changing conditions of temperature and humidity, result of the application of sealant in edges. Finsa recommends the use of sealants on the edges.

Sealing recommendations

Rubio Monocoat Oil Plus 2C

Description

RMC Oil Plus 2C is a one-layer ecological oil for interior surfaces, for the protection of high-quality wood products and is environmentally friendly. With a single coat, the oil colors and protects the surface, giving it a natural look. Thanks to advanced technology that takes advantage of the effect of molecular bonding, Rubio Monocoat has the following qualities: application in a single coat without visible marks, 0% VOC, water and solvent free, heat resistant and quick drying.

Preparation

First sand the board with 80 grit and repeat the process with 120 grit without applying pressure. This will prevent dust from accumulating. Later, a finer grain can be used. The selected grain determines the gloss level of the top layer. We recommend working with a 150 grit finish. Then use a compressed air gun or soft brush to ensure a dust free surface. Do not use a damp cloth, this creates stains that can no longer be removed.

Mix

Mix RMC Oil Plus 2C with RMC Accelerator comp. B. Stir the mixture well. We recommend stirring the product regularly during application.

Application

Use a 150 diameter eccentric grinder with a 150/20 round blue polishing pad. Soak the sponge in the oil. Starting at one corner, apply the oil to the already polished surface without applying pressure. After that, apply small amounts of oil to the already treated part and spread the product evenly on the board. Treat the entire board this way. Polish the surface sufficiently. The surface should feel almost dry to the touch.

Let your work dry for 12-24 hours.

Advice

Application possibilities: with a spray gun at 30 g/m2 with a low pressure gun and a 1/1.2 mm nozzle. The oil should then be buffed out with a blue 150/20 round polishing sponge. RMC Standard Sponge (for small surfaces). Excess oil should be removed with cloths.

More information on edge sealing with Rubio Monocoat Oil Plus 2C is available on request.

Universal Sealant NF Aquaton

Description

Water-based coating formulated to be used to treat wooden supports or their derivatives, transferring to the support resistance to the outside and to exposure to alkaline media. The supports treated with the NF Aquaton Universal Sealant have an extremely water-repellent character generated by methylpolyxyloxane additives, which which causes the non-absorption of traces of water.

It has outstanding adherence, suitable permanent elasticity and extraordinary resistance to rubbing. The films generated likewise have a marked anti-blocking resistance.

Preparation

Remove any traces of grease or oil from the surface to be coated and remove any deposited dust. In case of finding old layers of paint, it is convenient to know what nature they are composed of to avoid possible incompatibilities. Eliminate all old paint that shows adhesion failures on the substrate.

Application

Application methods: roller, brush, spray gun in any of its versions, immersion, automatic, etc.

Appropriate type of diluent: Preferably neutral water.

Drying times: Data taken according to recommended micronage and recommended dilution. (30 wet microns) Touch: 10 minutes. Overall: 15 minutes

Overcoat interval:

Room temperature	10°C	25°C	40°C
Minimum	2 hours	15 minutes	5 minutes
Maximum	NO	NO	NO

Advice

It is very important to respect the minimum drying time of the applied layer depending on the temperature of the surroundings, substrate temperature and environmental humidity, before stacking the treated elements in order to avoid possible adhesion problems between pieces.

Compac Plus E-Z

E05 CARB2

Properties	Test	Thickness (mm)			Units
		6	>6/12	>12/19	
Density*	EN 323	1050	1050	1050	Kg/m^3
Internal bond	EN 319	1.8	1.8	1.8	N/mm^2
Bending strength	EN 310	55	55	55	N/mm^2
Modulus of elasticity	EN 310	5 000	5 000	5 000	N/mm^2
Thickness swelling in water 24 hours	EN 317	7	7	5	%
Dimensional stability length / width	EN 318	0.40	0.40	0.40	%
Dimensional stability thickness	EN 318	6	6	6	%
Surface soudness	EN 311	1.7	1.7	1.7	N/mm^2
Surface absorption (both faces)	EN 382-1	>150	>150	>150	mm
Moisture content	EN 322	7+/-3	7+/-3	7+/-3	%
Silica content	ISO 3340	≤0.05	≤0.05	≤0.05	% Weight
Edge swelling	EN 13329	18	15	13	%
Reaction to fire Table 8 UNE EN 13986:2006+a1:2015	EN 13501-1	E	D-s2,d0(**)	D-s2,d0(***)	Euroclass
Accelerated aging test (opt. 1) Swelling after cyclic test (V313)	EN 321 / EN 317	12	12	12	%
Accelerated aging test (opt.1) Internal bond after cyclic test (V313)	EN 321 / EN 319	0.40	0.40	0.40	N/mm^2
Accelerated aging test (opt.2) Internal traction after cooking test (V100)	EN 1087-1 / EN 319	0.20	0.20	0.20	N/mm^2
Sound absorption coefficient (α)(250 to 500 Hz)	UNE EN 3986:2006+A1:2015	0.10	0.10	0.10	α
Sound absorption coefficient (α)(1000 to 2000 Hz)	UNE EN 13986:2006+A1:2015	0.20	0.20	0.20	α
Thermal conductivity	UNE EN 13986:2006+A1:2015	0.19	0.19	0.19	W/ (m·K)
Acoustic insulation against aerial noise (R)	UNE EN 13986:2006+A1:2015	25	27	29	db
Water vapor resistance factor. Dry cup.	UNE EN 13986:2006+A1:2015	43	43	43	μ
Water vapor resistance factor. Wet cup.	UNE EN 13986:2006+A1:2015	30	30	30	μ
Biological durability	UNE EN 335	1 & 2	1 & 2	1 & 2	Use class
Pentachlorophenol content	UNE EN 13986:2006+A1:2015	<5	<5	<5	ppm

Tolerance on nominal dimensions

Properties	Test	Thickness (mm)			Unidades
		6	>6/12	>12/19	
Thickness	EN 324-1	+/-0.20			mm
Length and width	EN 324-1	+/- 2mm/m max 5mm			mm
Squareness	EN 324-2	+/-2.0			mm/m
Edge straightness	EN 324-2	+/-1.5			mm/m

(*) This data is considered indicative.

(**) Without air space behind the Compac Plus E-Z for thicknesses greater than or equal to 9 mm. Classification D-s2,d2 with confined air space or free air space less than or equal to 22mm behind the Compac Plus E-Z ≥9mm. Classification E for any other condition of use/thickness. According to decision 2007/348/CE.

(***) Without air space behind the Compac Plus E-Z or for thickness greater than or equal to 18 mm in any condition. Classification D-s2,d2 for any other condition of use. According to decision 2007/348/CE.

These physical-mechanical values meet/better the values established in the European standard EN 622-5:2009, Table 4 -Requirements for boards for general use in humid environments (Type MDF.H).

Compac Plus E-Z is a product with reduced formaldehyde emission E05 (< 0.05 ppm EN 717-1).

Compac Plus E-Z has a Certificate of Compliance with the requirements of the US EPA TSCA Title VI for formaldehyde emission (<0.11 ppm ASTM E 1333).

Compac Plus Ignífugo E-Z
Compac Plus Fire Retardant E-Z

Properties	Test	Thickness (mm)		Units
		8/12	>12/19	
Density*	EN 323	1050	1050	Kg/m³
Internal bond	EN 319	1.8	1.8	N/mm²
Bending strength	EN 310	45	45	N/mm²
Modulus of elasticity	EN 310	4 000	4 000	N/mm²
Thickness swelling in water 24 hours	EN 317	8	6	%
Dimensional stability length / width	EN 318	0.40	0.40	%
Dimensional stability thickness	EN 318	6.0	6.0	%
Surface soudness	EN 311	1.7	1.7	N/mm²
Surface absorption (both faces)	EN 382-1	>150	>150	mm
Moisture content	EN 322	7+/-3	7+/-3	%
Silica content	ISO 3340	≤0.05	≤0.05	% Weight
Edge swelling	EN 13329	15	15	%
Reaction to fire	EN 13501-1	B-s1,d0	B-s1,d0	Euroclass
Accelerated aging test (option 2). Swelling after cyclic test (v313)	EN 1087-1 / EN 319	0.2	0.15	N/mm²
Sound absorption coefficient (α)(250 to 500 Hz)	UNE EN 3986:2006+A1:2015	0.10	0.10	α
Sound absorption coefficient (α)(1000 to 2000 Hz)	UNE EN 13986:2006+A1:2015	0.20	0.20	α
Thermal conductivity	UNE EN 13986:2006+A1:2015	0.19	0.19	W/ (m·K)
Acoustic insulation against aerial noise (R)	UNE EN 13986:2006+A1:2015	26	29	db
Water vapor resistance factor. Dry cup	UNE EN 13986:2006+A1:2015	43	43	μ
Water vapor resistance factor. Wet cup	UNE EN 13986:2006+A1:2015	30	30	μ
Biological durability	UNE EN 335	1 & 2	1 & 2	Use clase
Pentachlorophenol content	UNE EN 13986:2006+A1:2015	<5	<5	ppm
Mechanical durability	UNE EN 13986:2006+A1:2015	Table 3.1, EN1995-1:2004; Table 3.2, EN1995-1:2004;		Kmod kdef

Tolerance on nominal dimensions

Properties	Test	Thickness (mm)		Units
		8/12	>12/19	
Thickness	EN 324-1	+/-0.20		mm
Length and width	EN 324-1	+/- 2mm/m max 5mm		mm
Squareness	EN 324-2	+/-2.0		mm/m
Edge straightness	EN 324-2	+/-1.5		mm/m

(*) This data is considered indicative.

These physical-mechanical values meet/improve the values established in the European standard EN 622-5:2009, Table 6 "Requirements for structural boards for general use in humid environments (Type MDF.HLS)".

Compac Plus Fire Retardant E-Z is a product with reduced formaldehyde emission E05 (< 0.05 ppm EN 717-1) and complies with the Class E1 requirements defined in the European Standard EN 622-1:2003.

Compac Plus Fire Retardant E-Z has a Certificate of Compliance with the requirements of US EPA TSCA Title VI and CARB phase 2 formaldehyde emission (< 0.11 ppm ASTM E 1333).

Compacmel Plus E-Z

E05 CARB2

Properties	Test	Thickness (mm)			Units
		6	>6/12	>12/19	
Density*	EN 323	1050	1050	1050	Kg/m³
Internal bond	EN 319	1.8	1.8	1.8	N/mm²
Bending strength	EN 310	55	55	55	N/mm²
Modulus of elasticity	EN 310	5 000	5 000	5 000	N/mm²
Thickness swelling in water 24 hours	EN 317	1	1	1	%
Dimensional stability length / width	EN 318	0.40	0.40	0.40	%
Dimensional stability thickness	EN 318	6	6	6	%
Surface soudness	EN 311	1.7	1.7	1.7	N/mm²
Moisture content	EN 322	7+/-3	7+/-3	7+/-3	%
Silica content	ISO 3340	0.05	0.05	0.05	% Weight
Edge swelling	EN 13329	7	7	7	%
Reaction to fire Table 8 UNE EN 13986:2006+A1:2015	EN 13501-1	E	D-s2,d0(**)	D-s2,d0(***)	Class
Accelerated aging test (option 1). Swelling after cyclic test (v313)	EN 321 / EN 317	2	2	2	%
Accelerated aging test (option 1). Internal traction after cyclic test (v313)	EN 321 / EN 319	0.60	0.60	0.60	N/mm²
Accelerated aging test (option 2). Internal tensile after firing test (v100)	EN 1087-1 / EN 319	0.2	0.2	0.2	N/mm²
Sound absorption coefficient (α)(250 to 500 Hz)	UNE EN 3986:2006+A1:2015	10	10	10	α
Sound absorption coefficient (α)(1000 to 2000 Hz)	UNE EN 13986:2006+A1:2015	0.20	0.20	0.20	α
Thermal conductivity	UNE EN 13986:2006+A1:2015	0.19	0.19	0.19	W/ (m·K)
Acoustic insulation against aerial noise (R)	UNE EN 13986:2006+A1:2015	25	27	29	db
Water vapor resistance factor. Dry cup	UNE EN 13986:2006+A1:2015	43	43	43	μ
Water vapor resistance factor. Wet cup	UNE EN 13986:2006+A1:2015	30	30	30	μ
Biological durability	UNE EN 335	1 & 2	1 & 2	1 & 2	Use class
Pentachlorophenol content	UNE EN 13986:2006+A1:2015	<5	<5	<5	ppm

Tolerance on nominal dimensions

Properties	Test	Thickness (mm)			Units
		6	>6/12	>12/19	
Thickness with respect to nominal value	UNE-EN 14323	+/-0.3			mm
Thickness in the same board	UNE-EN 14323	max-min <0.6			mm
Length and width	UNE-EN 14323	+/- 2 mm/m max 5.0 mm			mm
Flatness (only in balanced coverings)	UNE-EN 14323	-	-	2(e≥15 mm)	mm/m

Covering

Properties	Test	Thickness (mm)	Units
Scratch resistance	UNE-EN 14323	≥2	N
Crack resistance	UNE-EN 14323	≥4	Grade
Resistance to staining (group 3)	UNE-EN 14323	≥4	Grade
Color fastness to UV light (xenon lamp)	UNE-EN 14323	>6	Blue scale nº
Dry heat resistance	UNE-EN 14323	≥4	Grade
Impact resistence	UNE-EN 14323	≥1500	Mm H
Antibacterial efficiency	ISO 22196	≥99.9	%
Visual defects			
Damage on edges	UNE-EN 14323	≤10 (****) ≤3(*****)	mm
Appearance flaws. Points	UNE-EN 14323	≤2	mm²/m²
Appearance flaws. Scratches	UNE-EN 14323	≤20	mm/m²

Abrasion resistance

Properties	Test	IP number of turns	Class
Abrasion resistance. Designs	UNE-EN 14323	<50	1
Abrasion resistance. Unicolors and finishes AH	UNE-EN 14323	>150	3A

(*) This data is considered indicative.

(**) Without air space behind Compacmel Plus E-Z for thicknesses greater than or equal to 9 mm. Classification D-s2,d2 with confined air space or free air space less than or equal to 22 mm behind Compacmel Plus E-Z ≥9 mm. Classification E for any other condition of use/thickness. According to decision 2007/348/CE.

(***) Without air space behind Compacmel Plus E-Z or for thickness greater than or equal to 18 mm in any condition. . Classification D-s2,d2 for any other condition of use. According to decision 2007/348/CE.

(****) Commercial dimensions.

(*****) Boards cut to size.

These physical-mechanical values meet/improve the values established in the European standard EN 622-5:2009, Table 4. -Requirements for boards for general use in humid environments (Type MDF.H).

Product tested by the IMSL following the procedure indicated by the ISO 22196:2011 Standard, verifying that it offers features that inhibit the growth and development of bacteria without harming the characteristics of the covering.

Compacmel Plus E-Z is a product with reduced formaldehyde emission E05 (< 0.05 ppm EN 717-1).

Compacmel Plus E-Z is US EPA TSCA TITLE VI and CARB Phase 2 compliant as it is manufactured by applying decorative paper to the Compac Plus E-Z backing board with US EPA TSCA TITLE VI and CARB Phase 2 compliance certificate issued by the TPC- 15.

Compacmel Plus Ignífugo E-Z
Compacmel Plus Fire Retardant E-Z

Properties	Test	Thickness (mm)		Units
		8/12	>12/19	
Density*	EN 323	1050	1050	Kg/m³
Internal bond	EN 319	1.8	1.8	N/mm²
Bending strength	EN 310	45	45	N/mm²
Modulus of elasticity	EN 310	4 000	4 000	N/mm²
Thickness swelling in water 24 hours	EN 317	2	2	%
Dimensional stability length / width	EN 318	0.40	0.40	%
Dimensional stability thickness	EN 318	6.0	6.0	%
Surface soudness	EN 311	1.7	1.7	N/mm²
Moisture content	EN 322	7+/-3	7+/-3	%
Swelling at edges	EN 13329	10	8	%
Reaction to fire	EN 13501-1	B-s1,d0	B-s1,d0	Euroclase
Accelerated aging test (option 2). Swelling after cyclic test (v313)	EN 1087-1 / EN 319	0.20	0.15	N/mm²
Sound absorption coefficient (α)(250 to 500 Hz)	UNE EN 3986:2006+A1:2015	0.10	0.10	α
Sound absorption coefficient (α)(1000 to 2000 Hz)	UNE EN 13986:2006+A1:2015	0.20	0.20	α
Thermal conductivity	UNE EN 13986:2006+A1:2015	0.19	0.19	W/ (m·K)
Acoustic insulation against aerial noise (R)	UNE EN 13986:2006+A1:2015	26	29	db
Water vapor resistance factor. Dry cup	UNE EN 13986:2006+A1:2015	43	43	μ
Water vapor resistance factor. Wet cup	UNE EN 13986:2006+A1:2015	30	30	μ
Biological durability	UNE EN 335	1 & 2	1 & 2	Use clase
Pentachlorophenol content	UNE EN 13986:2006+A1:2015	<5	<5	ppm
Mechanical durability	UNE EN 13986:2006+A1:2015	Tabla3.1, EN1995-1:2004; Tabla3.2, EN1995-1:2004;		Kmod kdef

Tolerance on nominal dimensions

Properties	Test	Thickness (mm)		Units
		8/12	>12/19	
Thickness	EN 324-1	+/-0.3		mm
Length and width	EN 324-1	+/- 2mm/m max 5mm		mm
Squareness	EN 324-2	+/-2.0		mm/m
Edge straightness	EN 324-2	+/-1.5		mm/m

Covering

Properties	Test	Thickness (mm)	Units
Scratch resistance	UNE-EN 14323	≥2	N
Crack resistance	UNE-EN 14323	4	Grade
Resistance to staining (group 3)	UNE-EN 14323	4	Grade
Color fastness to UV light (xenon lamp)	UNE-EN 14323	>6	Blue scale ,nº
Dry heat resistance	UNE-EN 14323	4	Grade
Impact resistence	UNE-EN 14323	1500	Mm H
Antibacterial efficiency	ISO 22196	≥99.9	%
Visual defects			
Daños en cantos	UNE-EN 14323	≤10 (**) ≤3(***)	mm
Defectos de aspecto. Puntos	UNE-EN 14323	≤2	mm²/m²
Defectos de aspecto. Rayazos	UNE-EN 14323	≤20	mm/m²

Abrasion resistance

Properties	Test	IP number of turns	Class
Abrasion resistance. Designs	UNE-EN 14323	<50	1
Abrasion resistance. Unicolors and finishes AH	UNE-EN 14323	>150	3A

(*) This data is considered indicative.

(**) Commercial dimensions.

(***) Boards cut to size.

Compacmel Plus Fire Retardant E-Z has a class 3B abrasion resistance (>650 laps) as defined in the European standard EN 14322 in the single-color designs of the standard range.

Product tested by the IMSL following the procedure indicated by the ISO 22196:2011 Standard, verifying that it offers features that inhibit the growth and development of bacteria without harming the characteristics of the covering.

These physical-mechanical values meet/improve the values established in the European standard EN 622-5:2009, Table 6 "Requirements for structural boards for general use in humid environments (Type MDF.HLS)".

Compacmel Plus Fire Retardant E-Z is a product with reduced formaldehyde emission E05 (< 0.05 ppm EN 717-1) and complies with the Class E1 requirements defined in the European Standard EN 14322.

Compacmel Plus Fire Retardant E-Z is US EPA TSCA TITLE VI and CARB Phase 2 compliant when manufactured by applying decorative paper to the backing board Compac Plus Fire Retardant E-Z with US EPA TSCA TITLE VI and CARB Phase 2 compliance certificate issued by the TPC-15.

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V1 2023