Finsa
Tech

Lightweight boards

Where volume becomes lighter

finsa.com

Finsa

Our lightweight boards help you to reduce weight and transport costs. They are more user friendly in comparison to conventional boards and better for the environment because less material has to be used.

Index

Features and applications

Lightweight boards avoid weight, use less material and can be machined like any other wood based panel.

Characteristics

Convenience
• Can be subjected to any machining, cutting and edging process, with the same tools normally used for other wood based boards.

Lightness
• Clear improvement in terms of handling, work safety and logistics (up to 40 % more cargo forwarded in each shipment).
• Significant decrease in weight: over 40% compared to standard MDF.

Environment
• Environmentally friendly: 100% recyclable, CO_2 -capturing material which helps tackle climate change.
• Innovative product: efficiency in terms of resource usage.

Applications

• Home furniture
• Kitchen or bathroom furniture
• Office furniture: desktops, partitions
• Stands, displays
• Interior and wardrobe doors
• Table tops
• Shelves
• Partitions screens, columns, ceilings
• Interior furniture for caravans
• Interior furniture for boats
• Panelling

01/

Load handling: reduces the risk of injuries during the manual load handling and allow the transport of large pieces/packs

Work execution: optimize time, work and resources which are linked with the assembly and installation of site.

Transport and logistics: optimize the land transport and maritime logistics. Restrictions of load are applied.

Environmental protection: improve the energy efficiency and reduce greenhouse gases.

Design: allow to integrate and create volumes adapting to different trends. They offer different possibilites in terms of finishes and coverings.

Cost: reduce the cost associated with transport, resources and time.

New spaces creation: create lightweight elements adapting them to new ways of construction and current ways of living by building open and flexible spaces.

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.

03/

Hospitality

Third Day Coffee
Nord-Ost Studio
Gareth Hamilton

Antrim, Northern-Ireland
2022

Iberpan 400 Nat Roble Europeo Claro

Tables and benches

Iberpan 400 E-Z

Homogeneous fibreboard with an approximate density of 400 kg/m3, designed to provide solutions to the excessive weight of thick pieces, making deep machining and moulding possible.

Main features EZ E-Z quality	The main characteristic of this product is its low density, between 400-450 kg/m3. It can be edged and cut with the usual machinery for MDF. It can be covered with natural veneer, recoverable decorative paper, high pressure laminate or lacquered. Classified as UL1-MDF (MDF ultralight boards used in dry environments) established in EN 622-5:2009. Service class 1. Formaldehyde emission: Class E1. EZ: low formaldehyde emission <0,05 ppm (EN717-1), CARB2.
Recommended for processes	Covering with natural veneer, laminates or other films, machining, lacquering...
Applications	Furniture in general, construction, assembly of exhibitions and fairs
Areas of use	Residential, hospitality and retail
Product possibilities	Available in thicknesses between 18 and 70 mm
Certifications	FSC www.fsc.org FSC® C041397 The mark of responsible forestry PEFC PEFC/16-33-004 www.pefc.es

04/

Ephemeral architecture

Casa Decor
Izaskun Chinchilla

Madrid, Spain
2017

Finlight

Acoustic ceiling panels

Finlight

A very light composite fibreboard with thin mdf faces (Fibranor) and very light fibre filler (Iberpan 300) that allows a large number of decorative options on the surface and very superficial machining.

Alternative possibilities

Finlight FP
Lightweight chipboard core instead of MDF

Decorative possibilities

Natur
Natural wood veneer decorative surface

Main features	Very light composite fibreboard consisting of 3 or 6 mm thin mdf faces (depending on final product thickness) and a very light fibre filler (Iberpan 300). It combines a smooth, compact and very resistant surface of the thin mdf board with the lightness of the Iberpan 300 interior. Its surface allows very superficial machining and the possibility of quality lacquering. Cutting, machining and edging are possible with standard machinery. Suitable for use in dry conditions. Service class 1. Formaldehyde emission: Class E1.
Recommended for processes	Lacquering or coverings
Applications	Furniture in general, interior doors, assembly of exhibitions and fairs
Areas of use	Residential, hospitality and retail
Product possibilities	Available in the following thicknesses: 35, 38, 40, 50 and 60 mm.
Certifications	FSC www.fsc.org FSC® C041397 The mark of responsible forestry · PEFC PEFC/14-39-00008 www.pefc.es · CERTIFIED cradle to cradle PRODUCTS PROGRAM

05/

Superpan Star

Lightweight wood-based board composed of wood fibre faces and particleboard interior with a 20% lower weight compared to a standard board while maintaining its technical properties and machinability.

Alternative possibilities

Superpan Star Top
4mm thick fibre faces

Decorative possibilities

Duo
Decorative surface

Natur
Natural wood veneer decorative surface

Main features P2 Classified P2	Lightweight board composed of wood fibre faces and particleboard interior combined with a lightweight polymer that is 20% lighter than a standard Superpan board and maintains similar physical-mechanical properties to chipboard. It has a smooth and perfectly calibrated fibre surface, suitable for a wide range of decorative finishes and coverings. It combines all the advantages of Superpan boards with a lower weight, offering a light, versatile and technically efficient solution. Classified P2 according to EN-312 Service class 1. Formaldehyde emission: Class E1.
Recommended for processes	Covering with natural veneer, laminates or other films, machining, lacquering.
Applications	Furniture in general, construction, assembly of exhibitions and fairs.
Areas of use	Residential, hospitality y retail.
Product possibilities	Available in thicknesses between 19 and 44 mm
Certifications	FSC www.fsc.org FSC® C041397 The mark of responsible forestry PEFC PEFC/14-33-0006 www.pefc.es

06/

Workplace

Refurbishment Estudio Ágora Arquitectura
Ágora Arquitectura

Barcelona, Spain
2022

Greenpanel

Table and shelves

Greenpanel E-Z

Ultra light composite board that combines technical and decorative aspects. Composed of 4 mm mdf faces and an interior 3 mm mdf grid, which gives it a high stability and resistance.

Main features EZ E-Z quality	Composite board with a very low density with 4 mm mdf faces (Fibranor), which makes it possible to carry out surface machining. Its interior is made of a 3 mm MDF grid, thus making it resistant and stable and especially recommended for applications requiring a balance between low weight, high stability and resistance. It allows cutting and edging using common machines. Suitable for use in dry conditions. Service class 1. Formaldehyde emission: Class E1. EZ: low formaldehyde emission <0,05 ppm (EN717-1), CARB2.
Recommended for processes	Covering with natural veneer, laminates or other films, lacquering
Applications	Large interior doors, general furniture (table tops...) and big volume furniture, suspended ceilings, stands
Areas of use	Residencial, hospitality and retail.
Product possibilities	Available in thicknesses between 28 and 100 mm
Certifications	FSC www.fsc.org FSC® C041397 The mark of responsible forestry PEFC PEFC/14-39-00008 www.pefc.es

06/

Hospitality

Espacio FS Experience en Design Week Marbella.
Francisco Segarra

Marbella, Spain
2021

Greenpanel Negro, Fibracolour Negro y Superpan.

Stand construction

Foldable table
Helga Snel

Rotterdam, The Netherlands
2022

Greenpanel Black

Table

Workplace

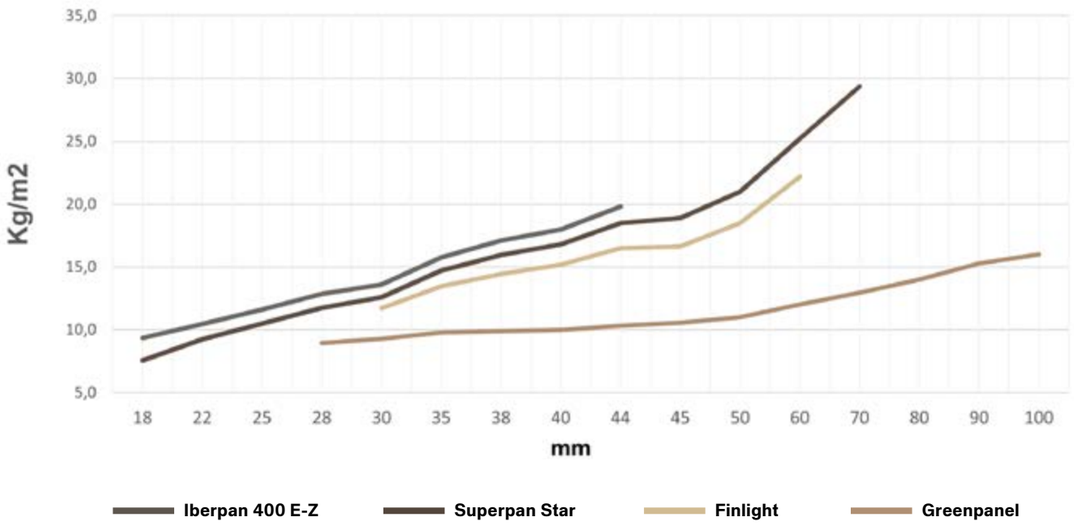
Greenpanel Black E-Z

Ultra-light black coloured composite board that combines technical and decorative aspects. Composed of 3 mm black mass coloured mdf faces and interior grid. This grid layout gives it great stability and strength, and a high aesthetic value to the exposed edge.

Main features EZ E-Z quality	Very low density composite board with 3 mm black coloured mdf faces (Fibracolour negro E-Z). Its interior is made up of a 3 mm MDF grid, which gives it great strength and stability, especially recommended for applications that require a balance between low weight, high stability and strength. It can be cut and edged with the usual machines. Suitable for use in dry conditions. Service class 1. Formaldehyde emission: Class E1. EZ: low formaldehyde emission <0,05 ppm (EN717-1), CARB2.
Recommended for processes	Covering with natural veneer, laminates or other films, lacquering
Applications	Large interior doors, general furniture (table tops...) and big volume furniture, suspended ceilings, stands
Areas of use	Residential, workplace, hospitality and retail
Product possibilities	Available in thicknesses between 28 and 100 mm
Certifications	FSC www.fsc.org FSC® CW1397 The mark of responsible forestry PEFC PEFC/14-39-00006 www.pefc.es

Comparisons

Comparison by thickness (mm)



Application guide*

	Iberpan 400 E-Z	Finlight	Superpan Star	Greenpanel E-Z
Lightness	★ ★ ★	★ ★ ★	★ ★	★ ★ ★ ★ ★
Bending strength	★ ★	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★
Screw holding surface	★ ★	★ ★ ★	★ ★ ★ ★	★ ★
Screw holding edge	★ ★ ★	★ ★	★ ★ ★ ★	★
Volume	★ ★ ★ ★	★ ★ ★	★ ★	★ ★ ★ ★ ★
	Thicknesses 18 to 70 mm	Thicknesses 35 to 60 mm	Thicknesses 19 to 44 mm	Thicknesses 28 to 100 mm

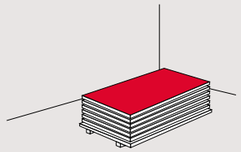
* Orientative

07/ Technical recommendations

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.

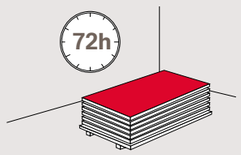
For more information consult the website **finsa.com**

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, 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.
- We recommend special care against any blunt lateral strokes or letting the board fall on the ground, as this can damage its interior.

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.
- Specific recommendations for the edge sealing can be found on the next pages.
- It is recommended to consult your usual tool supplier for more information and advice.

08/ Specific recommendations

The following recommendations are specific for the various lightweight boards mentioned in this catalogue.

Ibepan 400 E-Z

Decorative paper covering

Iberpan 400 E-Z is not an appropriate baseboard to be directly covered with standard decorative paper on short-cycle presses. Please request information about our possibilities with recoatable decorative paper.

Finlight

Recommendations for cutting, machining, drilling, gluing and edging

The cutting, machining and edging processes are similar in terms of working conditions (speed, pressure, temperture) to those normally used for other types of wood based panels. Edges should be protected against blows, shocks, wear, tear, and moisture. We recommend the use of harder edges (such as PVC or ABS), wood veneer, metal or plastic profiles. Once it has been processed, it is mandatory that the final product is properly insulated and sealed on all four edges to prevent swelling.

Decorative paper covering

Finlight is not an appropriate baseboard to be directly covered with decorative paper on short-cycle press. Please request information about our possibilities in decorative paper coverings.

Natural veneer covering

Recommended working conditions:
- Pressure: 3 or 4 kg/cm2 .
- Temperature: 120/140°C
- Pressing time: according to the type of glue.

Covering with high-pressure laminate

Recommended working conditions:
- Pressure: 3 or 4 kg/cm2
- Temperature: 120/140°C

Fittings

Connecting fittings

TAB 18
Manufacturer: Häfele
Thickness: 29-50 mm
with frame

TAB 20HC
Manufacturer: Häfele
Thickness: 32-60 mm
without frame

RAFIX 20HC
Manufacturer: Häfele
Thickness: 32-50 mm
without frame

MINIFIX 15
Manufacturer: Häfele
Thickness 29-50 mm
with frame

Insertion runners

Self-perforating runner
Manufacturer: Any
improves edge
fastening
(undemanding
fastening)

Shelf support

HETTINJECT TITAN
Manufacturer: Hettich
Along with a plastic
stand.
Thickness: 30 mm

Screws / pins

DU 261
Manufacturer: Hettich
Combined with
Hettinject
runner and fitting VB
36 HT

VARIANTA
Manufacturar: Häfele
Drill 3 / 5 mm

Connectors tabletops

AVB HT
Manufacturer: Hettich
Tabletop thickness
50/60 mm

Screws / pins

CONNECTING
PIN M20
Manufacturer: Häfele
Drill 5 mm

CONNECTING
PIN S100
Manufacturer: Häfele
Drill 5 mm

Our solutions are compatible with any type of standard fittings in the market. However, you may find a wide range of special fittings, which are also appropriate to be used with our boards. For more information: Häfele (hafele.com) and Hettich (hettich.com).

In furniture pieces that may require edge fixation, we recommend strengthening the board by placing wooden frames which offer greater resistance to the use of iron fittings and/or screws.

09/ Greenpanel recommendations

On this page, specific recommendations like fittings and the manipulation Greenpanel can be found

Bonding

Just like with normal MDF boards, Greenpanel can be bonded by using white wood-glue. It is also possible to use veneer, CPL or HPL (stratifier). To get the best result it is adviced to cover both sides with the required material.

	Veneer	HPL
Temperature	90 ºC	90 ºC
Pressing-time	2 minutes	2 minutes
Pressure	Max. 0.5 kg/cm2	Max. 0.5 kg/cm2
Amount of adhesive	100 g/m2	80 g/m2

Decorative paper covering
Finsa Greenpanel is not a suitable baseboard to be directly covered with decorative paper on short-cycle press. Please request information about our possibilities.

Edge banding

Greenpanel can be edge banded just like any other wood based board up to a thickness of 38mm. The edge band should have a minimal thickness of 2mm. Above 38mm some fine-tuning of the edge banding machine is requiered. From 60mm and onwards a support edge is adviced.

Screws

The go-to screw for fixing rails, hinges and all other standard jointing tools is the Varianta-screw HC from manufacturer Häfele. The image below showcases a version with a 3mm and 5mm drillhole. More information is

10/ Technical datasheets

Iberpan 400 E-Z

E05 | CARB2

Properties	Test	Thicknesses (mm)				Units
		> 30/40	>40/45	>45/60	>60/70	
Density*	EN 323	450	450	450	450	Kg/m^3
Internal bond	EN 319	0.20	0.20	0.20	0.20	N/mm^2
Bending strength	EN 310	10	10	10	10	N/mm^2
Modulus of elasticity	EN 310	1200	1200	1200	1200	N/mm^2
Thickness swelling 24h	EN 317	10	10	10	10	%
Dimensional movement length / width	EN 318	0,25	0,25	0,25	0,25	%
Dimensional movement thickness	EN 318	5	5	5	5	%
Surface absorption (two faces)	EN 382-1	>150	>150	>150	>150	mm
Moisture content	EN 322	7+/-3	7+/-3	7+/-3	7+/-3	%
Grit content	ISO 3340	≤ 0,05	≤ 0,05	≤ 0,05	≤ 0,05	% Weight
Formaldehyde emission	EN 717-1	≤ 8	≤ 8	≤ 8	≤ 8	ppm
Screw holding. Edge.	EN 320	350	350	425	425	N
Screw holding. Surface.	EN 320	550	550	650	650	N

Tolerance on nominal dimensions

Properties	Test	Thickness (mm)	Units
		>30/70	
Thickness	EN 324-1	+/-0.30	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 comply/ improve the values established in the European standard EN 622-5:2009, Table 9 -Requirements for MDF ultralight boards used in dry environments (UL1-MDF).
Iberpan 400 E-Z is a low formaldehyde emission product

E05 (≤ 0.05 ppm EN 717-1) and meets Class E1 requirements as defined in EN 622-1 European Standard.
Iberpan 400 E-Z is CARB Phase 2 and US EPA TSCA Title VI certified by TPC-15 (Formaldehyde emission < 0.11 ppm ASTM E 1333).

Finlight

cradle to cradle PRODUCTS PROGRAM

Properties	Test	Thicknesses (mm)				Units
		> 30/45	>30/45	>45/60	>45/60	
MDF faces thickness		3	6	3	6	mm
Density*	EN 323	410/380	470/420	380/360	420/390	Kg/m^3
Internal bond	EN 319	0.06	0.06	0.06	0.06	N/mm^2
Bending strength	EN 310	5	5	5	5	N/mm^2
Modulus of elasticity	EN 310	1300	1300	1200	1200	N/mm^2
Thickness swelling 24h	EN 317	10	8	9	7	%
Dimensional movement length / width	EN 318	0,30	0,30	0,30	0,30	%
Dimensional movement thickness	EN 318	3	3	3	3	%
Surface absorption (two faces)	EN 382-1	>150	>150	>150	>150	mm
Moisture content	EN 322	7+/-3	7+/-3	7+/-3	7+/-3	%
Grit content	ISO 3340	≤ 0,05	≤ 0,05	≤ 0,05	≤ 0,05	% Weight
Formaldehyde emission	EN 717-1	≤ 8	≤ 8	≤ 8	≤ 8	ppm
Screw holding. Surface.	EN 320	600	600	600	600	N

Tolerance on nominal dimensions

Properties	Test	Thickness (mm)	Units
		>30/70	
Thickness	EN 324-1	+/-0.30	mm
Length and width	EN 324-1	+/- 3 mm/m	mm
Squareness	EN 324-2	+/-3.0	mm/m

(*) Values to be considered as a rough guide only.

The thicknesses indicated refer to the MDF faces.
The core of the product is Iberpan 300.

The sound reduction index is of 24,2 dB. It has been established by AIDIMA following its own procedure. This procedure is based on measuring the sound pressure level on one third of octave bands between 250 Hz and 8 kHz in six different frequency intervals. The result is the mean of all the soundproofings specific of each of the frequencies.

Superpan Star

Properties	Test	Thicknesses (mm)					Units
		16/20	>20/25	>25/32	>32/40	>40/44	
Density*	EN 323	525	500	500	470	450	Kg/m³
Internal bond	EN 319	0.35	0.30	0.25	0.20	0.20	N/mm²
Bending strength	EN 310	11	10.5	9.5	8.5	7	N/mm²
Modulus of elasticity	EN 310	1600	1500	1350	1200	1050	N/mm²
Surface soundness	EN 311	> 0.8	> 0.8	> 0.8	> 0.8	> 0.8	N/mm²
Surface absorption (two faces)	EN 382-1	>150	>150	>150	>150	>150	mm
Moisture content	EN 322	8+/-3	8+/-3	8+/-3	8+/-3	8+/-3	%
Formaldehyde emission	EN 717-1	≤ 0.10	≤ 0.10	≤ 0.10	≤ 0.10	≤ 0.10	ppm
Screw holding. Edge.	EN 320	> 500	> 500	> 500	> 300	> 300	N
Screw holding. Surface.	EN 320	> 600	> 600	> 600	> 600	> 600	N

Tolerance on nominal dimensions		Thickness (mm)	
Properties	**Test**	16/44	**Units**
Thickness	EN 324-1	+/- 0.3	mm
Length and width	EN 324-1	+/- 5	mm
Squareness	EN 324-2	+/- 2	mm/m
Edge straightness	EN 324-2	+/- 1.5	mm/m

(*) This data is considered indicative.

These physical-mechanycal values fullfil P2 technical class defined in the European Standard EN 312:2010, Table 3. - Boards for interior fitments (including furniture) for use in dry conditions.

Superpan Star fullfis E1 Class requirements defined in the European Standard EN 312:2010.

Greenpanel E-Z and Greenpanel Black E-Z

E05 **CARB2**

Properties	Test	Thicknesses (mm)						Units
		28	38	50	60	80	100	
Density*	EN 323	320	260	220	200	175	160	Kg/m³
Internal bond	EN 319	0.15	0.15	0.15	0.15	0.15	0.15	N/mm²
Bending strength	EN 310	10	10	7	7	5	5	N/mm²
Modulus of elasticity	EN 310	1000	1000	900	900	700	700	N/mm²
Surface soundness	EN 311	> 0.8	> 0.8	> 0.8	> 0.8	> 0.8	> 0.8	N/mm²
Surface absorption (two faces)	EN 382-1	>150	>150	>150	>150	>150	>150	mm
Moisture content	EN 322	7+/-3	7+/-3	7+/-3	7+/-3	7+/-3	7+/-3	%
Formaldehyde emission	EN 717-1	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8	ppm

Tolerance on nominal dimensions		Thickness (mm)	
Properties	**Test**	16/44	**Units**
Thickness	EN 324-1	+/- 0.5	mm
Length and width	EN 324-1	+/- 2 mm/m max. 5 mm	mm
Squareness	EN 324-2	+/- 2	mm/m
Edge straightness	EN 324-2	+/- 1.5	mm/m

(*) This data is considered indicative.

These values must be considered as a rough guide only, never as a guarantee of the characteristics of the product. The technical parameters of this product may be modified due to its constant evolution and to the regulations related to it.

More technical data can be found on finsa.com

Finsa

finsa.com

V. 02 | 03.2024