

FINlight®

The volume
that becomes lighter



FINSA
solutions in wood



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solutions in wood

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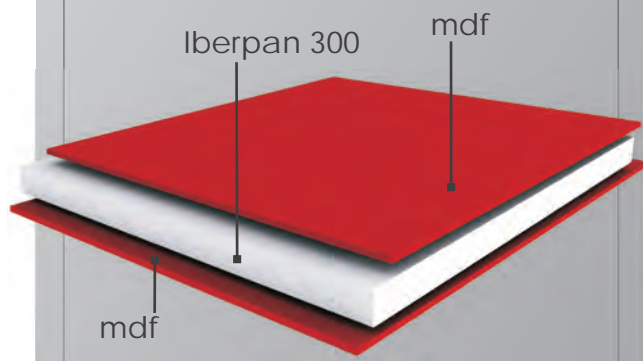
02

FINLIGHT
The volume
that becomes lighter





BASIC COMPOSITION



The volume that becomes lighter.

The current needs of an increasingly demanding, flexible market in constant evolution, encouraged us to develop new panels that naturally adapt to the present design trends, especially the ones based on large formats.

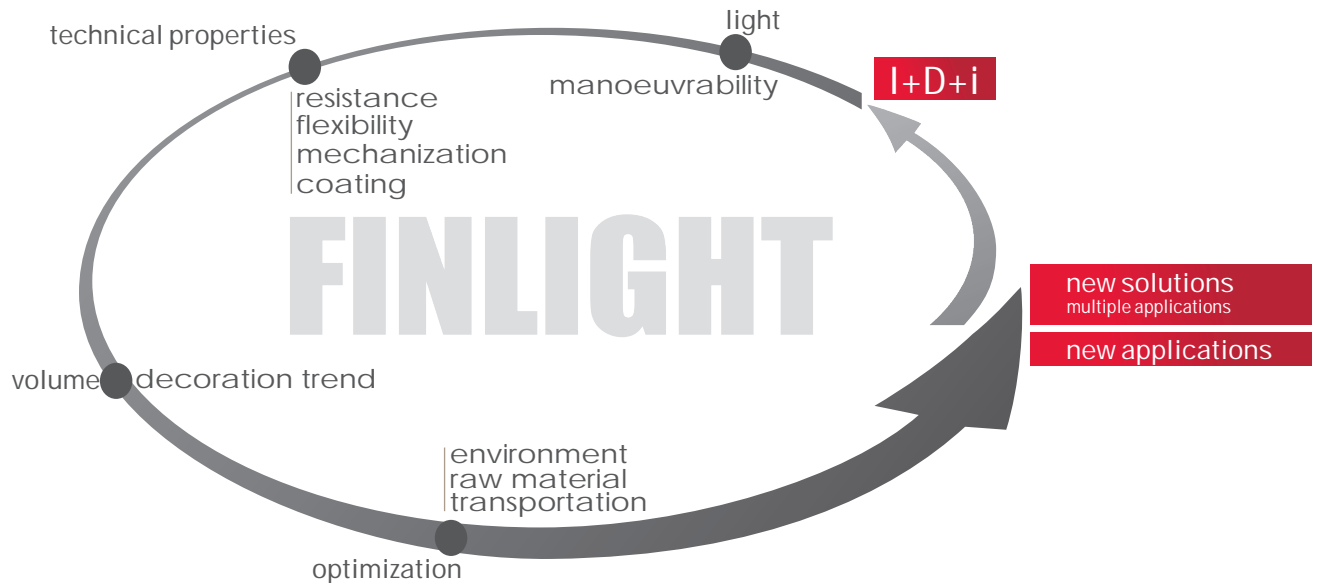
Finlight is the outcome of our long experience as manufacturers of wood panels, as well as the result of the work developed by our Innovation and Development Department. This innovative support is the solution which completes our range of light and ecological panels, without renouncing the usual quality demands for the panels manufactured by Finsa.

Finlight is a versatile product, perfectly combining design, lightness and manoeuvrability.

FINLIGHT



IF YOU ARE SEARCHING FOR A LIGHT
PANEL WITH QUALITY ASSURANCE,
FINLIGHT IS THE SOLUTION.



Lightness, resistance and versatility are the main pillars of our proposal.

Versatility

The quality is the result of using a very low density panel in its interior. Finlight may be subjected to any kind of standard handling, cutting and edging processes. Furthermore, it is perfectly compatible with the use of standard iron fittings (whenever they are applied to the panel surfaces), and tools and machines normally used for other wood based panels. Its low weight favours its handling and makes it easier to process. Finlight may be piled up vertically with no danger of collapsing or deforming due to lack of resistance.

Range and designs

Finlight offers a wide range of thicknesses and qualities which make it possible to adapt the product to all sorts of contexts and applications, both within the furniture industry and for structural solutions (screens and wall panelling, office furniture, exhibitors, interior decoration, etc...). Enjoy the advantages of the wide range of melamine or natural veneer coatings offered by Finsa.

Low weight

Its low weight translates into many positive aspects for the product. Finlight panels are very easy to handle due to the significant reduction of weight in large size or large volume pieces (a reduction of more than 40% in relation to the density of a standard MDF panel). So, its lightness results in clear improvements in terms of handling and safer working conditions. Moreover, it also offers excellent optimization in terms of transportation, with the consequent savings in logistic costs (you can add 40% more to each shipping load).

Environment

It is environmentally friendly. Finlight uses almost 50% less wood than a standard MDF panel, and 25% less resin and glues. Besides, its classification is of low formaldehyde contents (classified as E1).

Some Finlight suggestions ...

Finlight's application versatility is as diverse as the sectors where wood based panels can be used.

The following are just some possible applications:

- It is recommended as a support to be coated with Finish foil, high pressure laminate, PVC foil or veneer.
- Home furniture: suitable for use in any furniture items such as interior shelves or wardrobe tops. It is also appropriate for making table tops, shelves, stands, ...
- In bathroom furniture, use it for tops.
- In office furniture, it is ideal for desk tops.
- In kitchen furniture, for tops or back sides.
- Of course, for exhibition furniture and trade fair stands.
- And also for screens and wall panelling in offices.
- Sliding doors or interior doors.
- Columns or bases.
- Ceilings.



“Nowadays large volume pieces are a consolidated trend. Finlight opens up new perspectives in the furniture sector: lightness and ease of use”

“The wide range of decoration possibilities and the resistance offered by Finlight turn it into an innovative product which opens up new alternatives for the most demanding projects”

FINLIGHT





FINLIGHT

light panel with no coating.

Finlight is a lightweight board made up of 2 Fibranor faces (thin MDF) and core filling of Iberpan 300 (fibre with approx. density of 300kg/m³).

It allows finishings with covers such as finish foil, veneer, HPL or PVC foil, or even processes such as lacquering or painting, among its multiple uses.

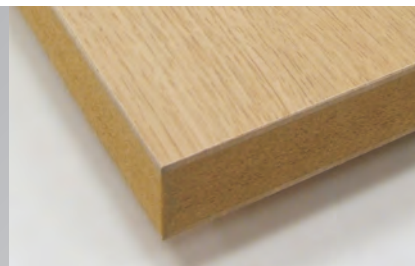


| | Standard | Possible |
|-------------|------------------|---|
| Formats | 2440x2050 mm | 2850x2050 mm and other measures upon request |
| Thicknesses | 35, 40 and 50 mm | 35 to 70 mm |
| Filling | Iberpan 300 | Iberpan 300 |
| Surfaces | MDF 3 mm | MDF 2-8 mm |

FINLIGHTPLAST

light melaminated panel.

FinlightPlast is a light panel made by two FibraPlast surfaces (thin melaminated MDF) and filled with Iberpan 300 (fibres with approximate density of 300 Kg/m³).



| | Standard | Possible |
|--------------------|------------------------------------|---|
| Formats | 2440x2050 mm | Other measures upon request |
| Thicknesses | 35, 40 and 50 mm | 35 to 70 mm |
| Surfaces | MDF 3 mm | MDF 3-8 mm |
| Designs | Gama Duo, Unicolores and Fantasias | |
| Types of finishing | Poro Chapa Poro Profundo | Poro Abierto Poro Catedral Soft II Soft IV Super Mate Liso |

You may find the full range of available designs and sorts of finishing in our Web page www.finsadecor.com.

FINLIGHTNATUR

light veneered panel.

FinlightNatur is a light panel made by two FibraNatur surfaces (thin veneered MDF) and filled with Iberpan 300 (fibres with approximate density of 300 Kg/m³).



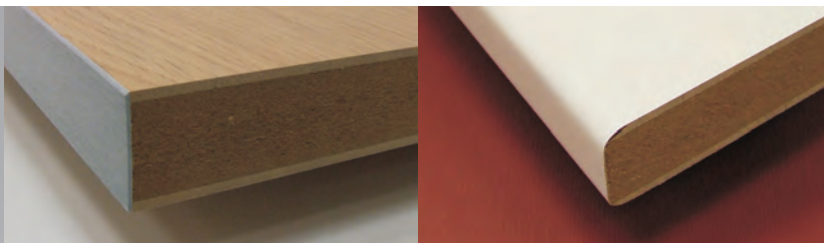
| | Standard | Possible |
|-------------|--|-----------------------------|
| Formats | 2440x2050 mm | Other measures upon request |
| Thicknesses | 36, 41 and 51 mm | 36 to 71 mm |
| Surfaces | Veneered MDF 3,5 mm (finish thickness) | MDF 3-8 mm |
| Veneers | Natural and pre-composed veneers of the FinsaNatur range | |

You may find the full range of natural and pre-composed veneers in our Web page www.finsanatur.com.

FINLIGHT ACTIVA

light mechanized panel

With Finlight one can edge, groove, post-form, drill and draw curved shapes.



Panels

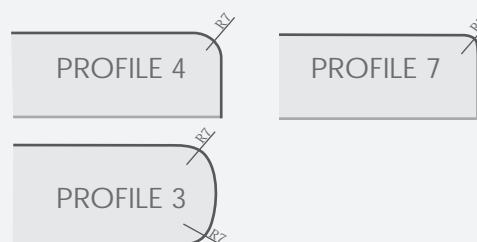
These are edged or grooved pieces, for subsequent manipulation in the furniture industry in general. It is also possible to build curved shaped Panels.

| | Right edged Panels | Curb edged Panels | Post-formed Panels |
|----------------|--|----------------------------|------------------------------------|
| Support | FinlightPlast | | |
| Length | 240-3200 mm | 300-3200 mm | 700-3200 mm |
| Width | 200-1200 mm | 250-2075 mm | 150-1500 mm |
| Thickness | 35-60 mm | 35-60 mm | Upon request |
| Type of edge | melaminated, PVC, ABS or polypropylene | | |
| Edge finishing | straight, beveled edge or curve | | |
| Others | Min. 60mm for panels edged on 1 side | Inner minimum radius 30 mm | Please refer to available profiles |
| | Possibility for tongues, grooves or pins | | |

Grooved Panels: Grooves on the panel surfaces which allow to support and fit complementary elements.



Post-formed Panels: A process which makes it possible to shape an edge and cover it with the decorative paper from the same panel.



Components

These are edged and grooved pieces, and with the added possibility of drilling and /or pinning. Industrial pieces ready for assembling, thus enabling to eliminate an additional manipulation.

We have "point to point" drilling lines which practically enable any sort of machine work.

FINLIGHT
RECOMMENDATIONS FOR USE
IRON WORK AND TECHNICAL DATA



Recommendations for use

Recommendations for transportation, storage and handling.

Finlight pallets are presented in packages with cardboard, plastic and strapped runners, in order to isolate and protect the panels from hostile environmental conditions.

Finlight should be transported and stored with care, in compact and sheltered piles, resting upon an appropriate flat base.

We recommend that Finlight be kept in stock inside its original package, always in dry places, in compact piles, protected from any contact with water or with the ground, walls or humidity.

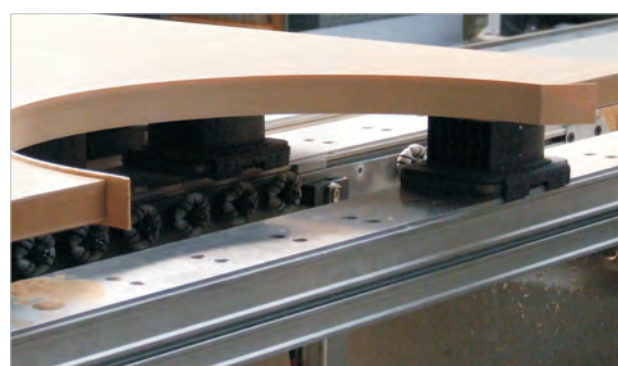
Finlight has no limitations of storage in vertical piles. Simply check that the runners are all placed in the exact same position and aligned in order to avoid any deformation of the panels. It is preferable to store on a horizontal, flat and continuous base.

It is recommended to pay especial attention to any strokes, namely on the sides, or to any panels that may fall on the ground, for, due to the characteristics of this product, damage may occur in the inside.

Recommendations for cutting, for machine work, for drilling, for gluing, for edging,...

Processes such as cutting, perforating, milling, machine work and edging are similar as far as working conditions (speed, pressure, temperature,...) to those normally used for other types of solid panels. As with any other wooden panels, Finlight accepts pre-cutting.

All edges should be protected against strokes, shocks, wear and tear, and humidity. We recommend the use of harder edges (e.g. PVC or ABS), wood veneered or stratified, metallic or plastic profiles,... And once it has been processed, it is fundamental for the final product (whether shelves, stands, tops...) to be properly isolated and sealed from the exterior in all four edges in order to avoid any swelling.



Recommendations for veneering

Melamine coating:

Finlight with no coating is not an appropriate support to be directly melaminated. We recommend that, if you require a melaminated product, please, do contact us for information on our FinlightPlast range.

Coating with natural veneer:

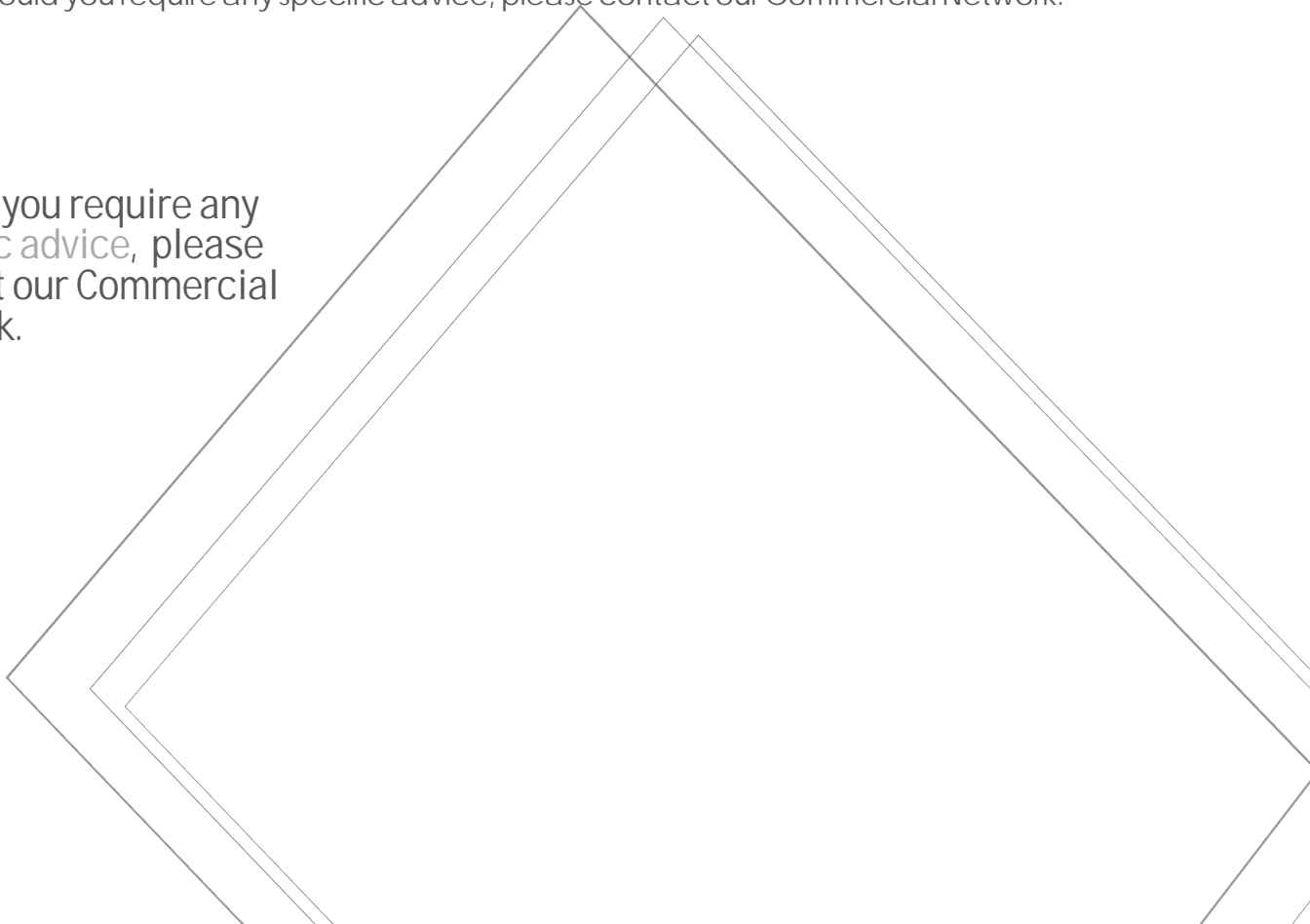
In case you use Finlight with no coating, for veneering you should take the following recommendations into account:

- Pressing pressure should come down to 1.5 or 2 kg/cm².
- Generally, it is not necessary to make any adjustment to the pressing temperature: you may use the same one as for veneering chipboard panels (100/120°C approximately).
- Pressing time shall be determined by the type of glue you use and by its reactivity degree. So, we recommend that you test with similar timings as for veneering conditions with which you normally work, and then correct the timing if necessary.

Other coatings:

Coated with high pressure laminate, coated with Finish Foil, lacquering process,... Finlight can be processed under the same conditions as any other wood based panels. Should you require any specific advice, please contact our Commercial Network.

Should you require any specific advice, please contact our Commercial Network.



Recommendations for types of iron work

We advice that you use standard iron fittings (e.g. pin and eccentric systems, "clock" iron fittings,...) which are compatible with Finlight as far as they always work upon the surfaces of the product.

In any case, you may find a wide range of special iron fittings in the market also suitable for being used with our panels. Here are some of our suggestions:

| | Product | Manufacturer | Commercial name | Notes |
|-----|-----------------------|--------------|--------------------------|---|
| 1. | Binding iron fittings | Hettich | VB36HT | For panels 30-60 mm thick combined with Hettinject and screw DU 261 |
| 2. | | Häfele | Tab 18 | For panels 29-50 mm thick with frame |
| 3. | | Häfele | Tab 20HC | For panels 32-60 mm thick without frame |
| 4. | | Häfele | Rafix 20HC | For panels 32-50 mm thick without frame |
| 5. | | Häfele | Minifix 15 | For panels 29-50 mm thick with frame |
| 6. | Shelf support | Hettich | Hettinject Titan | Accompanied by plastic stands. For panels from 30 mm thick |
| 7. | Screws/Pins | Hettich | Du 261 | Combined with Hettinject runner and iron fittings VB 36 HT |
| 8. | | Häfele | Varianta | Drilling 3 / 5 mm |
| 9. | | Häfele | Binding pin M20 | Drilling 5 mm |
| 10. | | Häfele | Binding pin S100 | Drilling 5 mm |
| 11. | Insertion runner | Hettich | N°4 HT | Drilling 8 mm. Compatible with Euro screw |
| 12. | | Hettich | Taco Hettinject | For panels 19-50 mm thick. Adhesive runner technology, mechanical fixation with chemical component. |
| 13. | | Any | Self-perforating runners | Enhances edge fastening (undemanding fastening) |
| 14. | | Häfele | Aerofix 100 | 32-50 mm thickness. Adhesive runner |
| 15. | Top connectors | Hettich | AVB HT | Top thickness 50 / 60 mm |
| 16. | | Häfele | Maxifix 35 HC | Top thickness 50 / 60 mm |



Recommendations for iron works

The iron fittings should be used according to the following principles: dividing the stress along the panel and making the iron fittings work by compression but rather than by pulling.

Preferably they should be screwed onto the surface or onto the same fitting, upright to the surface and to the edge. First make a hole, as small as possible in relation to the diameter of the screw and to the density of the panel. Use short and sharp screws, with full screw thread up to the top.

For items which may require edge fixation, we recommend that you enhance the solidity of the panel by adding wood frames that increase its resistance to the use of iron fittings and/or screws.

Further information available in:

www.hafele.com

www.hettich.com

Technical data – Average values

| Test | Properties | Units | Thicknesses (mm) | | | |
|-----------|--|-------------------|------------------|---------|---------|---------|
| | | | >30-45 | >30-45 | >45-60 | >45-60 |
| | thickness mdf surfaces | mm | 3 | 5 | 3 | 5 |
| EN 323 | density | Kg/m ³ | 410/380 | 470/420 | 380/360 | 420/390 |
| EN 319 | internal traction | N/mm ² | 0,06 | 0,06 | 0,06 | 0,06 |
| EN 310 | bending resistance | N/mm ² | 5 | 5 | 5 | 5 |
| EN 310 | elasticity module | N/mm ² | 1300 | 1300 | 1200 | 1200 |
| EN 317 | swelling in water 24 h | % | 10 | 8 | 9 | 7 |
| EN 318 | dimensional stability length/width | % | 0,30 | 0,30 | 0,30 | 0,30 |
| EN 318 | dimensional stability thickness | % | 3 | 3 | 3 | 3 |
| EN 311 | surface traction | N/mm ² | >1,2 | >1,2 | >1,2 | >1,2 |
| EN 382-1 | superficial absorption (both surfaces) | mm | >150 | >150 | >150 | >150 |
| EN 322 | humidity | % | 7+/-3 | 7+/-3 | 7+/-3 | 7+/-3 |
| ISO 3340 | silica content | % Weight | 0,05 | 0,05 | 0,05 | 0,05 |
| EN 120 | formaldehyde class e1 content | mg/100 g | 8 | 8 | 8 | 8 |
| EN 320 | resistance to screw pulling. Surfaces | N | 600 | 600 | 600 | 600 |
| | Acoustic reduction Index | dB | - | - | - | 24,2 |
| UNE 12667 | Thermal conductivity | W/(mk) | 0,267 | - | - | 0,267 |

Technical data – Average values

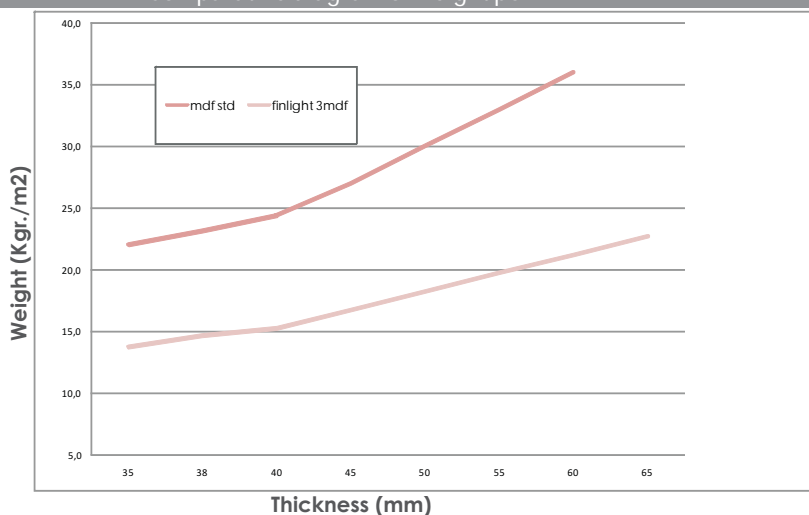
| | | | | | | |
|----------|------------------|------------|------------|------------|------------|------------|
| EN 324-1 | thickness | +/-0,30 | +/-0,30 | +/-0,30 | +/-0,30 | +/-0,30 |
| EN-324-1 | length and width | +/- 3 mm/m | +/- 3 mm/m | +/- 3 mm/m | +/- 3 mm/m | +/- 3 mm/m |
| EN 324-2 | casing | +/- 3 | +/- 3 | +/- 3 | +/- 3 | +/- 3 |

Data Table (testing method according to Standard DIN 68874-1)

| Thickness | Composition | Deformation / Deflection | | |
|-----------|-------------|--------------------------|---------|---------|
| | | 5 min. | 14 days | 28 days |
| 50 mm | 3+44+3 mm | 1,3 mm | 2,1 mm | 2,7 mm |

Notes: Distance between stands: 975 mm. Applied Load : 150 Kg /m². Maximum deflection allowed by standard 9.5 mm

Comparative diagram of weight per m²



These technical data should just be seen as guidelines due to the continuous development of the product and of the standards by which it guides itself. Therefore, some of these parameters may undergo some changes.

FINSA
OTHER LIGHT SOLUTIONS
DEVELOPED BY FINSA



FINLIGHT C

light panel with honeycomb cardboard structure.

Finlight C is a light panel made of Fimapan surfaces (chip board) and hexagonal honeycomb cardboard filling.

Finlight C is also available with melamine coating (FinlightPlast C) and with natural veneer (FinlightNatur C).



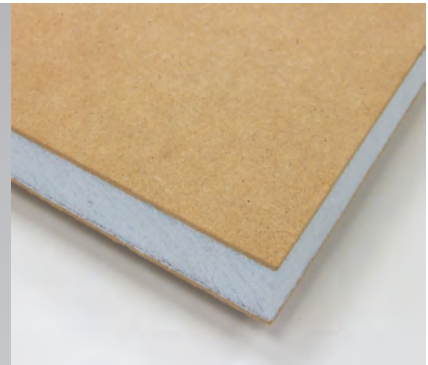
| | Standard | Possible |
|-------------|-------------------------------|-------------------------------------|
| Format | 2440x2050 mm | Other dimensions upon request |
| Thicknesses | 40 and 50 mm | 26 to 80 mm |
| Filling | Honeycomb cardboard structure | |
| Surfaces | Fimapan 8 mm | Upon request MDF or Chipboard panel |

FINLIGHT P

light panel with polystyrene filling.

Finlight P is a light panel made of Fibranor surfaces (thin MDF) and extruded polystyrene filling.

Finlight P is also available with melamine coating (FinlightPlast P) and with natural veneer (FinlightNatur P).



| | Possible |
|-------------|--------------------------|
| Format | 2440/2850/3200 x 2050 mm |
| Thicknesses | 30-70 mm |
| Filling | Extruded polystyrene |
| Surfaces | MDF or Chipboard |

Other fillings are possible upon request.

FINSA GREENPANEL

Maximum resistance. Minimum weight.

The Finsa range of light products includes the super resistant panel Finsa GreenPanel.

Finsa GreenPanel is made of thin MDF (Fibranor) on the surfaces and interior. Its interior is composed by 3 mm MDF arranged in a grid format, which enhances its resistance and stability, and makes it particularly suitable for those applications where high resistance to weight and good stability are required.

It can be edged with the usual woodworking edging-machinery which is normally used for other wood-based panels. We recommend the use of PVC or ABS edges with a minimum thickness of 2 mm.

In what iron fittings are concerned, Finsa GreenPanel is compatible with all standard iron fittings, we just recommend that you combine them with Varianta Screws (reference Häfele developed for panels whose surfaces are less than 4 mm thick) and with any standard iron fittings existing in the market.

The versatility offered by Finsa GreenPanel allows a variety of applications such as furniture, tops and table tops, wall panels, ceilings, caravans, thick floors, construction of exhibition stands for trade fairs, golf courses, shop furnishings and interior decoration, and even for use in Public Works.

| Data table (testing method according to Standard DIN 68874-1) | | | | |
|---|-------------|--------------------------|---------|---------|
| Thickness | Composition | Deformation / Deflection | | |
| 50 mm | 4+42+4 mm | 5 min. | 14 days | 28 days |
| | | 1,1 mm | 1,7 mm | 1,8 mm |

Notes: Distance between stands: 975 mm. Applied load: 150 Kg/m². Maximum deflection accepted by standard 9.75 mm



Project and pictures: Next Architects

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CERTIFICATES, ENVIRONMENT AND QUALITY

Finsa is one of the leading companies in Europe in the wood processing industry. As such, we feel strongly committed with the environment and perform our activities in full respect for the natural environment and in benefit of a sustainable development and a more effective and responsible society. Thus, Finsa strongly commits itself to stock its wood from well managed forests.

In 2004, FINSA received the PEFC certification (Programme for the Endorsement of Forest Certification Schemes) which guarantees that all raw materials used for the manufacture of our products come from sustainable managed forests.

The quality of the panels manufactured by our company is certified by the AITIM stamp (Association for Research in the Wood and Cork Industries).

