## 3DF FOR ULTIMATE DESIGN FREEDOM

Whether it's applied in furniture fronts, doors, seats, wall panelling or in other applications within construction or even in the automotive sector, 3DF presents several advantages when compared to the alternatives.

In fact, its moulding properties allow us to get deeper structures and higher radius capabilities on a faster and more productive way than with conventional methods, which happens not only due to its low cycle times but also for not requiring cooling after moulding. The compression moulding process ensures a dust free environment and virtually eliminates the generated waste, while at the same time delivers a highly compressed smooth surface, perfect for lacquering.

3DF is therefore the best option for turning your most demanding designs into reality with maximum flexibility and minimum effort. 3DF for ultimate design freedom.

## APPLICATIONS

KITCHEN CABINETS

KITCHEN CABINETS

WALL PANELLING

WALL PANELLING

DOORS

CHAIRS / BENCHS

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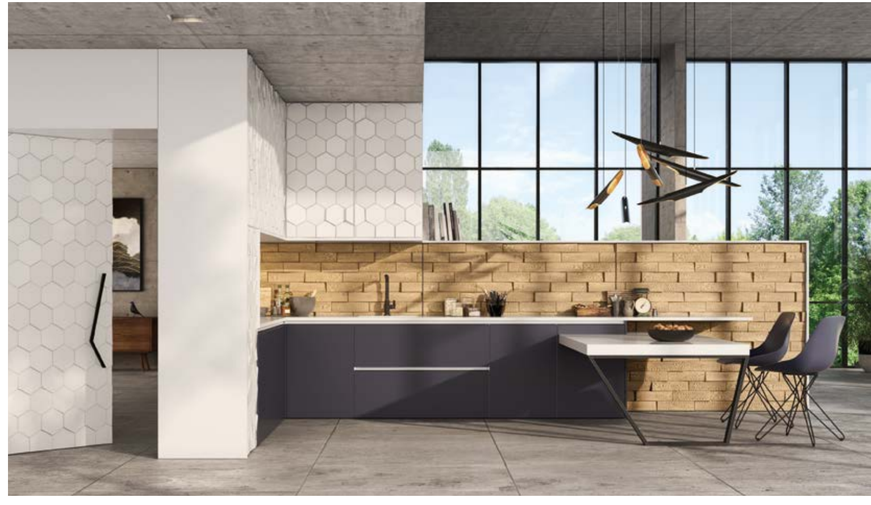
**www.sonaearauco.com**

SONAE ARAUCO
Taking wood further

0339 EN

# 3DF

THREE DIMENSIONAL FIBERBOARD



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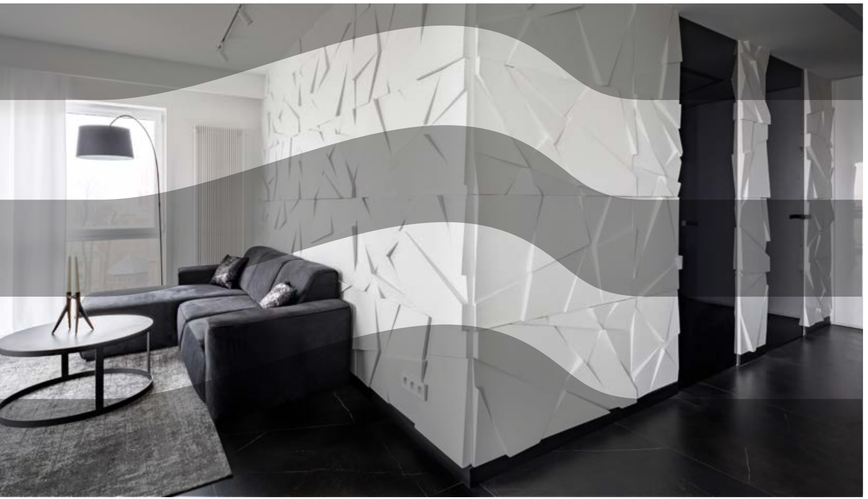

## 3DF - AN INNOVATIVE WOOD BASED COMPOSITE FOR COMPRESSION MOULDING PROCESSES

3DF allows a world of design possibilities: customized deep structures, elegant arcs and curves. Technical and functional aspects such as screw head immersions and embedded handles are also possible with a single operation.

3DF is produced with a formaldehyde free thermoplastic glue, that with the action of temperature and pressure can be shaped in required densities and thicknesses.

On top, the surface achieved is perfect for lacquering, powder coating and can also be surfaced with 3D foil or CPL directly at the moulding process.

The product gives you design freedom to projects combined with the advantages of a sustainable and controlled wood based panel.

VERSATILITY · PERFECT LACQUERING · MOLDABLE · LOW EMISSIONS

### FEATURES

- Durable and sustainable product
- Low emissions (NAF classification according to CARB)
- Easy and quick to process
- Good mechanical properties
- Interconnected without visible joints

### BENEFITS

- Easy to process:
  - Time saving
  - Lacquering costs saving
  - No dust emission when processing
- Easy to design:
  - Variety of deep textures
  - Easily achieved curves and arcs
  - Customized decorative design



## INSTRUCTIONS FOR USE

For standard moulding shapes and simple structures with 3DF boards a process temperature of 130°C and roughly 2 minutes are needed. To process complex and deep structures it is necessary to increase the moulding press temperature up to 140°C – 200°C and extend the pressing time.

In addition to the reduced processing times, 3DF is highly stable immediately after pressing, allowing it to be directly processed, giving a positive impact on productivity.

3DF versatility allows that two or more boards can be stacked and shaped without any glue in between.

The bending strength of the compressed parts can be increased either by raising the pressure or the press closing speed. These actions increase the surface density of moulded part. On other hand a homogeneous density profile optimizes the internal bond. Due to a closed surface, primer coat layers and lacquer weight can be reduced, achieving the same finishing quality level.

In particular the surface of the deeper parts of a moulded panel is much smoother than at a CNC milled MDF. This optimizes the surface coating quality of the deeper areas.

Standard equipment to saw and sand wood based boards can be used to process 3DF. Different embedded compositions can be added to the part if projected in mould design, that allows an easier incorporation of screws and fittings afterwards.

## PROCESSING

Mould fixed at press

Moulding

Moulded 3DF

These images are a representation of the processing operation and not real press images.

Mould

Moulded 3DF - Natural Colour

Moulded 3DF - Black Colour

3DF
THREE DIMENSIONAL FIBERBOARD

## MOLDED 3DF PROPERTIES

| INITIAL THICKNESS | 5.7 mm | 8.5 mm | 17 mm | 30 mm |
|---|---|---|---|---|
| **PROPERTIES AFTER PRESSING** | | | | |
| Thickness [mm] | 3.6 | 5.2 | 8.7 | 13.7 |
| Density [kg/m³] | 970 | 970 | 970 | 970 |
| IB [N/mm²] | 2.7 | 2.1 | 2.8 | 2.0 |
| MOR [N/mm²] | 39 | 40 | 46 | 46 |
| MOE [N/mm²] | 3400 | 3900 | 4000 | 4700 |
| 24 h Swelling [%] | 12 | 12 | 9 | 5 |

* Values at standard conditions 20°C / 65% r.h.

## PRODUCT RANGE

| PANEL SIZE [mm] | THICKNESS [mm] | DENSITY [kg /m³] |
|---|---|---|
| 2440 x 2100 | 5.7 | 600 |
| | 8.5 | 600 |
| | 17 | 500 |
| | 30 | 440 |

## CERTIFICATIONS

**ALSO AVAILABLE IN**

**Pay attention to certified products:**

FSC www.fsc.org — The mark of responsible forestry FSC® C009049

PEFC — Promoting Sustainable Forest Management — www.pefc.org

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