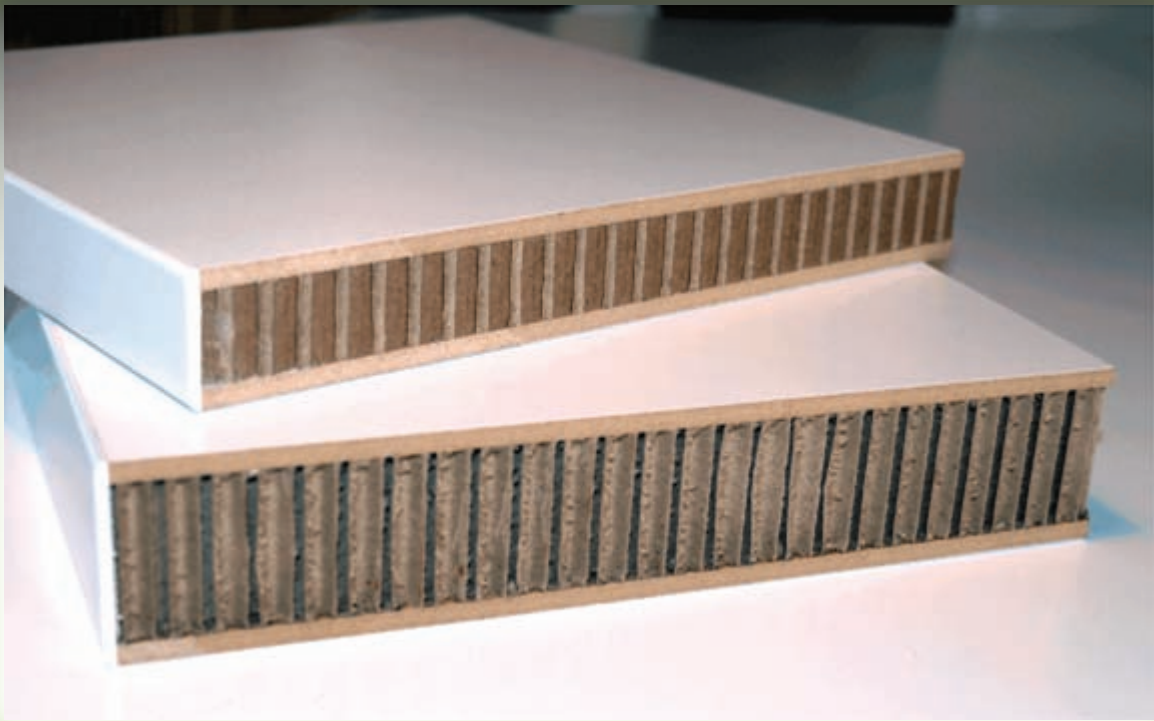




**PARAGON  
PANELS**

YOUR PARTNERS IN PROGRESS

# Purepanel Plus



**Environmentally Responsible Board Manufacture**

# Purepanel Plus

Sets a new benchmark in environmentally responsible board manufacture. P+ is a precision engineered structural quality board made from recycled paper waste and decorative surface laminations

P+ is combined with numerous decorative surface laminations during a panel pressing process creating a frameless, structural quality, weight saving replacement for formaldehyde encapsulated boards such as Medium Density Fiber Boards (MDF) and Particle Board. The significant weight reductions and enhanced structural performance of 90 ton per square meter crush strength within P+ provides architects, designers and specifiers with options previously unattainable when using conventional materials.

P+ delivers significant benefits across the entire supply chain, from design, right through to on-site installation.

**Purepanel Plus** is designed for the following built environments:

## **Residential :**

- Kitchen joinery & bench tops
- Dining room tables
- Entertainment units
- Bookcases
- Coffee tables
- Stairway framework
- Home office furniture
- Timber veneer doors
- Bedroom furniture



## **Commercial Office:**

- Office furniture
- Partition screens
- Shelving systems
- Boardroom tables
- Kitchen joinery
- Reception counters
- Operable room dividers
- Suspended ceiling panels
- Mobile pedestals
- Internal walls



## **Other:**

- Shop fitting
- Marine construction
- Caravan construction
- Demountable office construction
- Retail Displays

# Purepanel Plus

Environmentally Responsible Board Manufacture



## Purepanel Plus Partners



Paragon Panels is a division of A/S Custom Furniture. Two generations of founding family remain actively involved in the everyday operation of the company providing the customers with the security of knowing their needs will be met with urgency and integrity. A recent recipient of their FSC Chain of Custody Certificate, Paragon Panels is committed to providing the market with environmentally friendly solutions. The introduction of P+ manufacture allows Paragon Panels to provide a truly revolutionary board product that processes unprecedented environmental and weight benefits. This presents designers, architects, and specifiers with options previously unattainable with conventional materials



Hafele is a pioneer in the field of connection fittings for frameless lightweight board. They were the first company to develop connectors that allowed for extremely robust, load-bearing structures to be created using this innovative material. Hafele lightweight connectors have received numerous innovation awards. Tradesman can now use specially developed lightweight board fittings as well as existing hardware and traditional joinery to build a vast array of products for numerous market segments. Hafele is also a supplier of edging which can be directly applied to the frameless construction of P+.

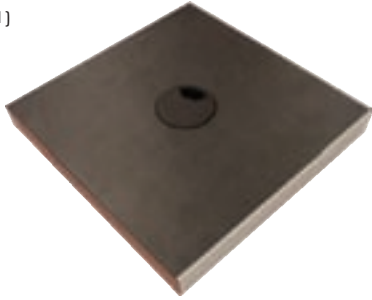


ABET LAMINATI manufactures high pressure laminates in hundreds of colors and finishes ranging from soft pastels to vibrant hues and offers the most solid colors in North America. ABET takes into account the latest trends in color and fashion to produce design-driven laminates. ABET's inclusion in the Greenguard Certification Program and the development of its 100% post-industrial recycled Tefor line of laminate demonstrate the company's commitment to promoting indoor air quality and sustainability.

# Purepanel Plus "Decorative Surfaces Options"

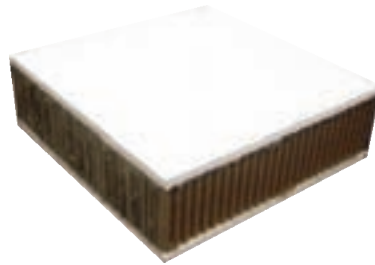
"Additional Decorative Surface laminations available on request"

1)



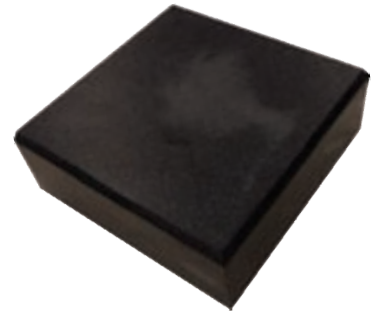
Commercial office: P+ laminated with HPL  
Edge: 3mm - ABS

2)



Wall construction: P+ laminated with 1/4" MgO  
1 hour fire rated

3)



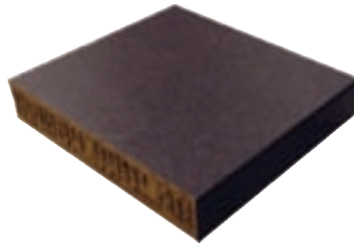
Counter Top: P+ laminated with solid surface  
materials. Edge: 1/2" bevelled

4)



Counter Top: P+ exposed solid surface  
lamination method.

5)



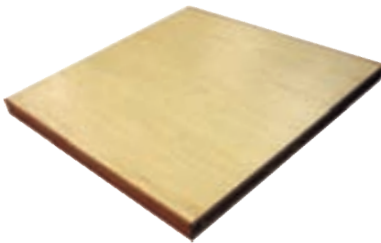
Counter Top: P+ laminated with HPL  
Edge: HPL

6)



Wall Panels: P+ laminated with wall paper

7)



Marine Panels: P+ laminated with decorative  
surfaced plywood. Edge: 2mm timber

8)



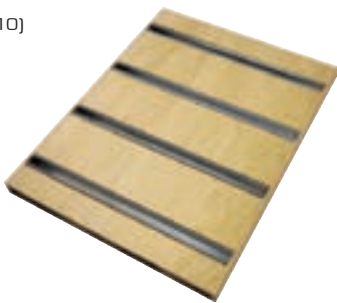
Commercial: P+ laminated with HPL edge HPL

9)



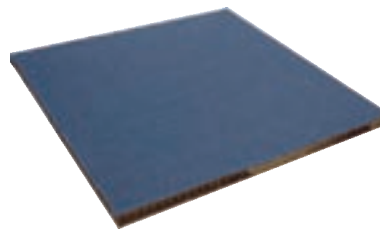
Joinery: 2" P+ laminated with veneered plywood

10)



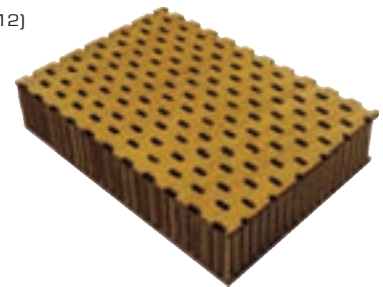
Commercial: 3/4" P+ slat wall laminated with  
timber veneer. Edge: 2mm timber

11)



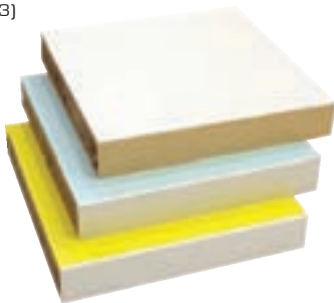
Office Screens: P+ laminated with fabric.

12)



Retail Display: P+ laminated with perforated sheet

13)



Furniture: P+ laminated with LPL. Edge: ABS

14)



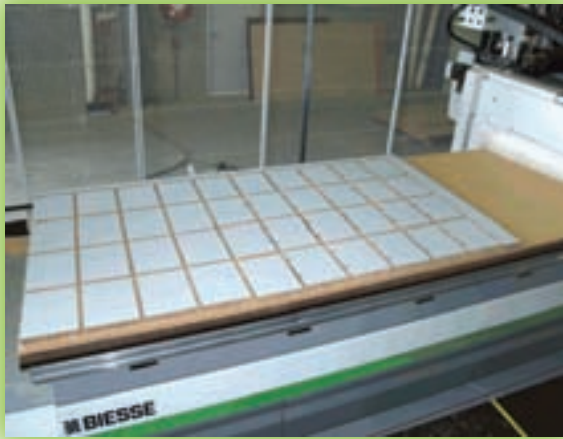
Joinery: 3/4" P+ laminated with timber veneer.  
Conventional hardware and connection methods

15)



3" and 1" P+ laminated with engineered stone.  
Edge 1/2" sculptured

# Machining Purepanel Plus



CNC Machining: - Tooling requirements dependent upon machining method used.



Drilling: - using conventional tooling.



Sawing: - using a beam saw, CNC or dimensional panel saw.



2mm ABS edging directly applied using standard conventional edge-banding machinery.



Edge Banding: - using conventional edge banding machinery with or without pre-milling.

LEUCO

Shank-type tools with hard-metal body for stationary machines.

Milling depths up to 100 mm possible.



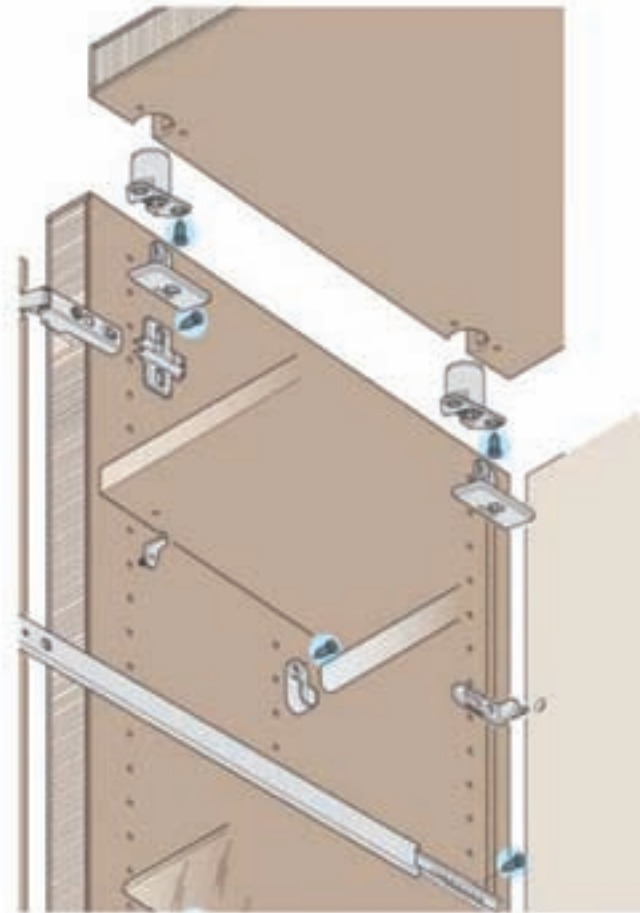
<h1>Purepanel Plus</h1> <h2>Processing Benefits:</h2>	Drilling	Sawing	Shaping	Edging	Transport	Install
<b>Machining:</b> <ul style="list-style-type: none"> <li>• Use conventional machinery including standard edge-banding equipment.</li> </ul>	✓	✓	✓	✓		
<b>Environmental:</b> <ul style="list-style-type: none"> <li>• Paper core consists of 100% recycled, post-consumer paper waste.</li> <li>• E-Zero MDF or VOC-free hardboard surface layers supplied as standard.</li> <li>• Energy savings in processing, manufacture, transportation, waste removal and delivery</li> </ul>	✓	✓	✓	✓	✓	
<b>Health:</b> <ul style="list-style-type: none"> <li>• Paper core is VOC-free.</li> <li>• Reduced airborne wood dust during machining E -Zero or VOC-free surface layers, supplied as standard.</li> <li>• Working with lightweight panels reduces the risk of weight related injuries resulting in less employee absenteeism.</li> </ul>	✓	✓	✓	✓	✓	✓
<b>Weight:</b> <ul style="list-style-type: none"> <li>• Less labour needed for lifting, processing and installation.</li> <li>• Light weight removes the need for structural material use in design.</li> <li>• Furniture can incorporate increased thicknesses which match imported designs.</li> <li>• Less injury related down time.</li> <li>• Less or lighter weight hardware required to operate panels and doors.</li> </ul>	✓	✓	✓	✓	✓	✓
<b>Transportation:</b> <ul style="list-style-type: none"> <li>• Volume increases per delivery vehicle.</li> <li>• Less weight means less vehicle wear &amp; tear</li> </ul>					✓	
<b>Installation:</b> <ul style="list-style-type: none"> <li>• Quicker installation times.</li> <li>• Less labour required.</li> </ul>						✓
<b>Cost Savings:</b> <ul style="list-style-type: none"> <li>• Lower energy requirements</li> <li>• Reduction in weight -related staff ed injuries</li> <li>• Quicker processing times</li> <li>• Less material required in construction</li> <li>• Hardware reduction</li> <li>• Reduced transportation costs</li> <li>• Reduced installation cost</li> <li>• Reduced costs associated with waste removal</li> </ul>	✓	✓	✓	✓	✓	✓

## Purepanel Plus

Hafele is a pioneer in the field of connection fittings for frameless lightweight panels. They were the first to develop connectors; which allowed for extremely robust, load-bearing structures to be created using this innovative material, for which they have received numerous innovation awards.

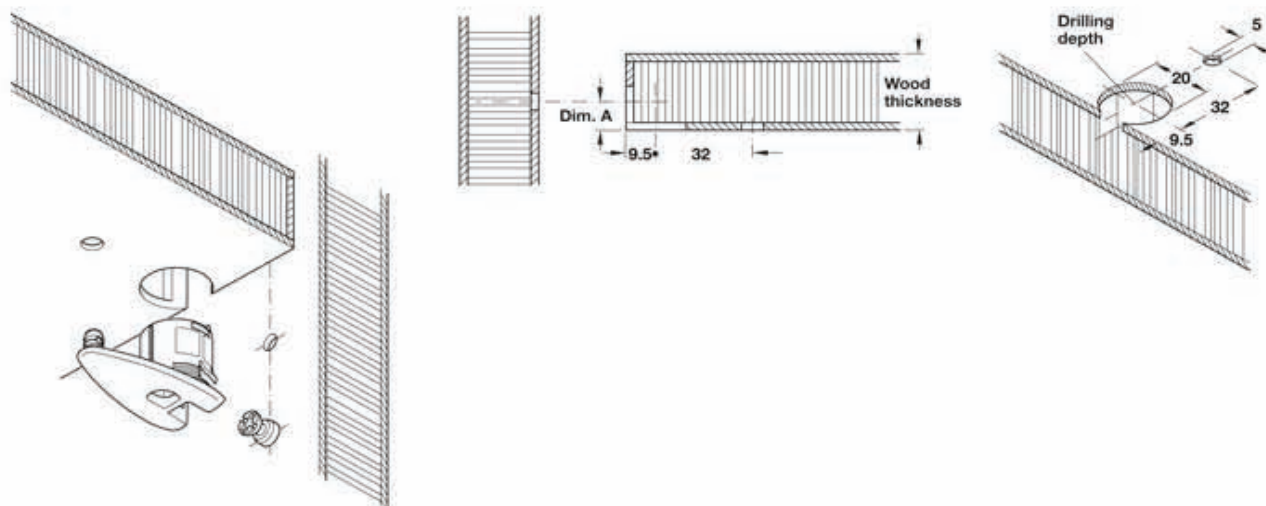
The innovative Varianta screw allows for seamless integration of a wide variety of standard fittings to be used with **Purepanel Plus**. The varianta screw works with outer skins as thin as 4mm.

Tradespeople can now use specially developed lightweight board fittings, existing hardware, and traditional joinery methods to build furniture using **Purepanel Plus**



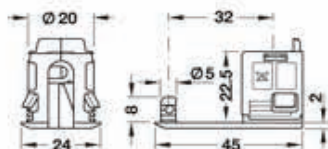
# Häfele Connectors for Purepanel Plus

## Rafix 20 HC Connector housing



- \* Area of application: For Purepanel Plus with a top layer (particleboard, hardboard, plywood or MDF) of 4 mm and above
- \* Suitable for: Purepanel Plus frameless board
- \* For wood thickness: 32 to 50 mm
- \* Drilling depth: 22.5 mm

→ For 32 mm thick panels



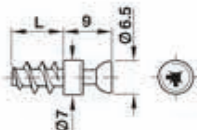
- Material: Boss insert: Plastic, tightening element: Zinc alloy
- Drill hole Ø: Boss insert 20 mm, Dowel 5 mm
- Drive: PZ2 cross slot

For wood thickness mm	Dim. A mm	Drilling depth mm	Colour	Cat. No.
32-50	16	22.5	Brown	263.18.102
			White	263.18.702
			Black	263.18.302
			Nickel colour lacquered	263.18.602

Packing: 100 Pieces

## M20 Connecting bolt

→ For Ø 5 mm drill hole



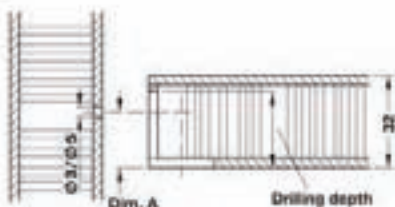
- Material: Zinc alloy
- Thread: Special thread
- Drive: PZ2 cross slot

Thread length L mm	Galvanized
7.5	263.20.131

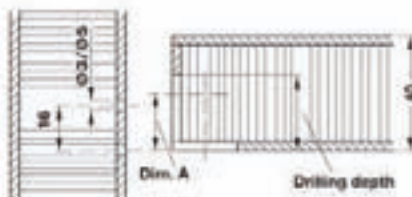
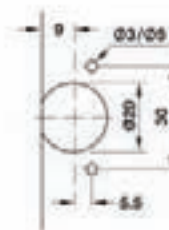
Packing: 100 or 2,000 Pieces

# Häfele Connectors for Purepanel Plus

## Tab 20 HC Connector housing

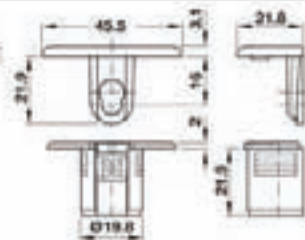


For 32 mm thick panels



For 40 mm thick panels

- \* Area of application: For lightweight boards with top layers (particleboard, hardboard, plywood or MDF) of 4 mm and above
- \* Suitable for: Purepanel Plus frameless board
- \* Diameter: boss insert 20 mm
- \* For wood thickness: 32 to 50 mm
- \* Drilling depth: 22.5 mm

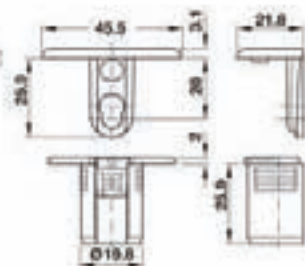


- Material: Support and tightening element: Zinc alloy, boss insert: Plastic
- Finish: Support and tightening element: Nickel plated or black, boss insert: Natural
- Drill hole Ø: Boss insert 20 mm
- Drive: Varianta special screw 3 or 5 mm PZ2, PH2 or flat blade

For wood thickn. mm	Dim. A mm	Drill. depth mm	Black	Nickel pl.
32-50	16	22	263.95.532	263.95.732

Packing: 100 Pieces

→ For 40 mm thick wood



- Material: Support and tightening element: Zinc alloy, boss insert: Plastic
- Finish: Support and tightening element: Nickel plated or black, boss insert: Natural
- Drill hole Ø: Boss insert 20 mm
- Drive: Varianta special screw 3 or 5 mm PZ2, PH2 or flat blade

For wood thickn. mm	Dim. A mm	Drill. depth mm	Black	Nickel pl.
40-60	20	26.5	263.95.335	263.95.735

Packing: 100 Pieces



- Area of application: For lightweight panels
- Finish: Galvanized

### Varianta Special screw for Purepanel Plus

A large selection of standard fittings can be attached to top layers of 4 mm and above using the Varianta special screw.

For drill hole Ø mm	Thread length L mm	Cat. No.
3	14	013.30.900
5	13	013.30.910

Packing: 100 or 1,000 Pieces

# Purepanel Plus

## Connecting Purepanel Plus Using Conventional Methods

### Connecting X-Board Plus using conventional methods

45 degree and 90 degree joints using biscuit insert method

Decorative Laminate Surface

Recommended

Various glue types can be used to glue the biscuit material directly into PP+. For best results apply glue directly to the PP+ core area which holds the biscuits and the surrounding PP+ surface area. For optimum strength use MDF, Particle board or Solid timber strips inserted into pre machined matching grooves in both halves of the joint.

Tongue and Groove joints

Panel Skin

Solid Timber with Tongue

Solid Timber grooved

### Placing in-fill material using the rebated core and butt jointed method

Edge can be shaped for 180 or 90 degree rolled edge work tops.

MDF, Particle Board or solid timber insert can be used.

The core can be machined using conventional machinery including hand held routers.

Infill material attached to PP+ Core using contact adhesive. Thickness is confirmed by the radius required.

Butt Jointed Method

4mm MDF layer

PP+ Core

MDF portion with radius ready for post forming.

# Purepanel Plus delivers significant benefits across the entire board supply chain; from design to on-site installation

Total Board Thickness	3/4"	1"	1.3"	1.5"	2.2"
<b>Purepanel Plus</b>	58 Pounds	62.9 Pounds	67.1 Pounds	69.9 Pounds	82 Pounds
<b>Solid MDF</b>	80.6 Pounds	115.5 Pounds	146.6 Pounds	168.8 Pounds	257.7 Pounds
<b>% Weight savings using Purepanel Plus over MDF</b>	<b>28%</b>	<b>46%</b>	<b>54%</b>	<b>59%</b>	<b>68%</b>

The above weight comparison shows the total approximate weight of a 4ft x 8ft panel of P+ skinned with 3/16" MDF, versus solid MDF board with no recycled paper content

## Virgin Wood Fibre Savings

Purepanel Plus Environmentally Friendly Boards use up to 95% less virgin wood fibre compared to solid MDF sheet. That's because our engineered paper core is derived entirely from post-consumer, recycled paper waste.



FSC certified manufacturer and supplier of C2C certified materials.



Purepanel Plus manufactured from 100% recycled paper waste.

# Purepanel Plus

Authorized manufacturer & distributor of PP+  
All boards sales and enquires to



**PARAGON  
PANELS**

YOUR PARTNERS IN PROGRESS

677 Dunksferry Rd

Bensalem, PA 19020

1-877-877-9399

[www.paragonpanels.com](http://www.paragonpanels.com)

**HÄFELE**  
FINDING BETTER WAYS

[www.hafele.com](http://www.hafele.com)

**ABET LAMINATI** 

Thanks to the companies that supported the development of Purepanels Plus