



Industrial MDF Exterior MDF Club Grade HDWR



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## About Greenpanel Industries Ltd.



Greenpanel is India's largest manufacturer of wood panels.

We are a group of individuals who see a wood panel not for what it is, but for what it can be. As a result, we've grown to represent the infinite possibilities in wood panelling.

Medium-Density Fibreboard (MDF) is our flagship product and, as pioneers of the Continuous Press Line method, we are the undisputed leaders and innovators of this category. Our state-of-the-art plants in Uttarakhand and Andhra Pradesh, with an annual combined capacity of more than 500,000 cubic metres, produce world-class MDF, Plywood, Veneers, Flooring and Doors.

# India's Largest Wood Panel Manufacturer

Over the years, our culture of innovation and sustainability has permeated into every sphere of our being. Greenpanel MDF is made with 100% renewable agroforestry wood. We are committed to create MDF culture in India.





# Brand Journey





# The Big Differentiator Why Greenpanel MDF?

# Excellence. Innovation. Sustainability.

Greenpanel is committed to provide high performance wood panel products that not only adhere to the International and Indian standards, but also delight consumers with limitless possibilities.

# Environment Friendly & Sustainable Practices

Our wood is sourced from Eucalyptus, Subabul and Casuarina agroforests. We encourage agroforestry among farmers by giving them our saplings and in the process, generate a source of livelihood for them.



Our manufacturing plants operate on zero waste system. All wood scraps are used for fuelling the power plant and the water treatment plant helps in having clean water.  Our production process doesn't harm the environment.

# State-of-the-art Manufacturing Process

Thanks to the exclusive and automated German technology used in our plants, our high-capacity output is in line with international standards. Our plants use the following machines:





- Dieffenbacher Continuous Pressing Technology: For making continuous MDF boards as per International standards
- Steinemann Sanding Machine: 14-Head Sanding Machine for better finished surfaces
- GreCon Dieffensor System: For scanning of fibre mat to produce uniform density panels as per International standards
- Grecon Stenograph: For in line monitoring of density profile
- Grecon Moisture Analyser: For mat furnishing and uniform moisture distribution throughout the panel to avoid warping and bending
- Automated Lucci System: Automated material movement and stocking
- IMAL Integrated Resin Dosing System: It improves the bonding and enhances the strength of the board
- Biomass based energy generation
- Valmet Chip Washer: Unique chip wash with high pressure water spray for perfectly cleaned chips





# World-Class Lab

Fibercam Equipment: For fibre measurement & analysis, in all three dimensions.





Universal Testing Machine: To test the mechanical property of MDF and other wood based panel products.

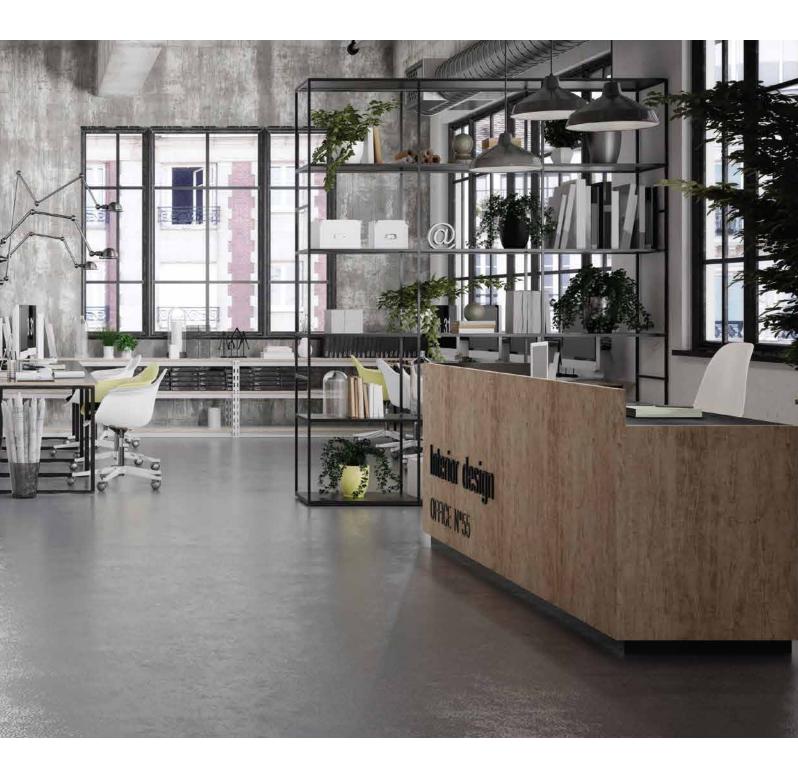
UV Spectro Photometer & Perforator: For testing the formaldehyde content of the MDF as per Indian and International standards.



# Our Range of MDF

As a new-age progressive wood panel brand, Greenpanel has always strived to create products that suit consumer needs and convenience. That's why we ventured into MDF, an engineered wood having limitless applications.

Our wide range of MDF boards are available in multiple sizes, thicknesses and grades that conform to Indian and International standards.



Greenpanel MDF is available in the following grades:

Industrial Grade MDF I Exterior Grade MDF Club Grade (HDWR) I E1/E0.5/CARB P2 MDF Pre-laminated MDF



# Industrial GRADE MDF

# Greenpanel Industrial Grade MDF

Pocket friendly & versatile

Industrial Grade is Greenpanel's finest regular density MDF board, and it's easy to see why. Thanks to its homogenous fine texture, high bonding strength, inherent stability and easy machinability, it can be used in an endless array of designs in residential and commercial interiors.

From cupboards, wardrobes, wall panel, table top, toys, trophies, handicrafts, Greenpanel Industrial Grade MDF is a product that literally has limitless applications. It is recommended for interior use only and should not be exposed to dampness or high humidity.

# It's versatile, elegant and oh-so-perfect!

- ( A surface as smooth as a feather gliding through the air.
- (SF) Easy machinability. Carve it, rout it, do what you please with it.
- (2) Resists moisture but absorbs elegance.
- Keeps the pests at bay. It's borer proof, virus, fungus and termite resistant.





# Wide Range

Our range of products is available in several sizes and thicknesses.

# Size (millimeters)\*

- MDF Size: 1830 mm x 1220 mm, 2440 mm x 1220 mm and 2440 mm x 1830 mm
- Special Size: 1830 mm x 0915 mm, 1830 mm x 1525 mm and 2135 mm x 0915 mm
- Pre-laminated MDF Size: 2440 mm x 1220 mm

# Thickness (millimeters)\*

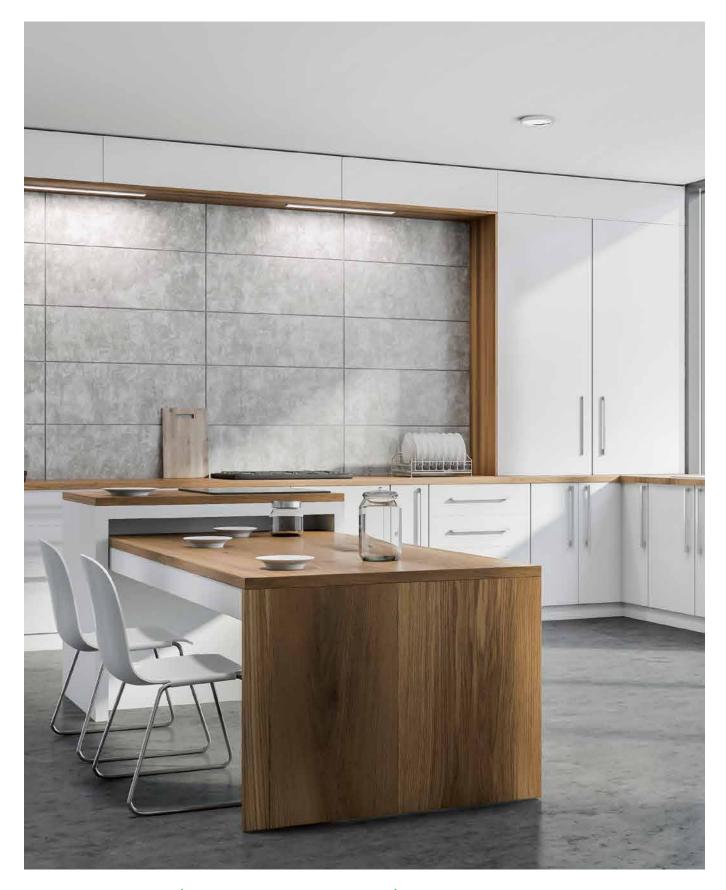
2.1 mm, 3.3 mm, 3.6 mm, 4 mm, 4.6 mm, 5.5 mm, 7 mm, 7.3 mm, 7.5 mm, 9.75 mm, 11 mm, 14.5 mm, 16.5 mm, 17 mm, 18 mm and 25 mm
 \*Size & thicknesses can be customized as per the MOQ and discretion of Greenpanel.

## Characteristics

With a smooth surface, excellent modulus of elasticity, high load-bearing capacity and strong internal bond, Greenpanel Industrial Grade MDF is highly recommended for 'residential dry space interior applications'.

### Recommended Applications

Light furniture, packaging, interior design, dry area partition, false ceilings, dry cabinets, handicrafts, toys, wardrobe etc.



Standards Adheres to BIS Standards IS 12406 Emission Class CARB, E1 & E2

Colour Natural Wood



# Greenpanel Industrial Grade MDF adheres to the following International Standards

- BS EN 622-5/2009 (British Standards)
- ISO 16895-2016 MR 2 (GP, FN) (Global Standards)
- JIS 5905-2003 (Type 25 & 30) (Japan)

# Technical Specifications (As per BIS Standard IS 12406)

PROPERTIES	UNIT	GREENPANEL INDUSTRIAL GRADE MDF BOARD RESULTS (AS PER THICKNESSES)						
Thickness	mm	≤2.5	>2.5 to 4	>4 to 6	>6 to 9	>9 to 12	>12 to 19	>19 to 30
Density	kg/m³	770-780	750-760	740-760	740-750	720-730	700-720	690-700
Moisture content	%	5-10	5-10	5-10	5-10	5-10	5-10	5-10
Thickness swelling (24 hrs)	% Max	45	35	30	17	15	12	10
Modulus of Rupture (Min)	N/mm²	23	23	23	23	22	20	18
Modulus of Elasticity (Min)	N/mm²	2800	2800	2700	2700	2500	2200	2100
nternal Bond Strength (Min)	N/mm²	0.65	0.65	0.65	0.65	0.60	0.55	0.55
Screw Withdrawal Strength (Min)								
Face	N	1250	1250	1250	1250	1250	1250	1250
Edge	N	NA	NA	NA	NA	NA	700	700
Formaldehyde content (FC),	mg/100 gm for oven dry board				E2 - 8 < FC ≤ 3	30		

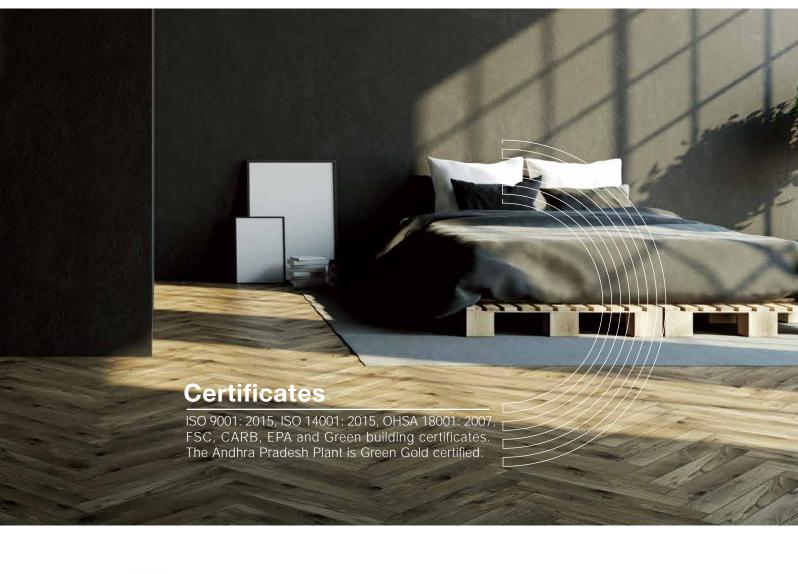


### **Dimension Tolerance**

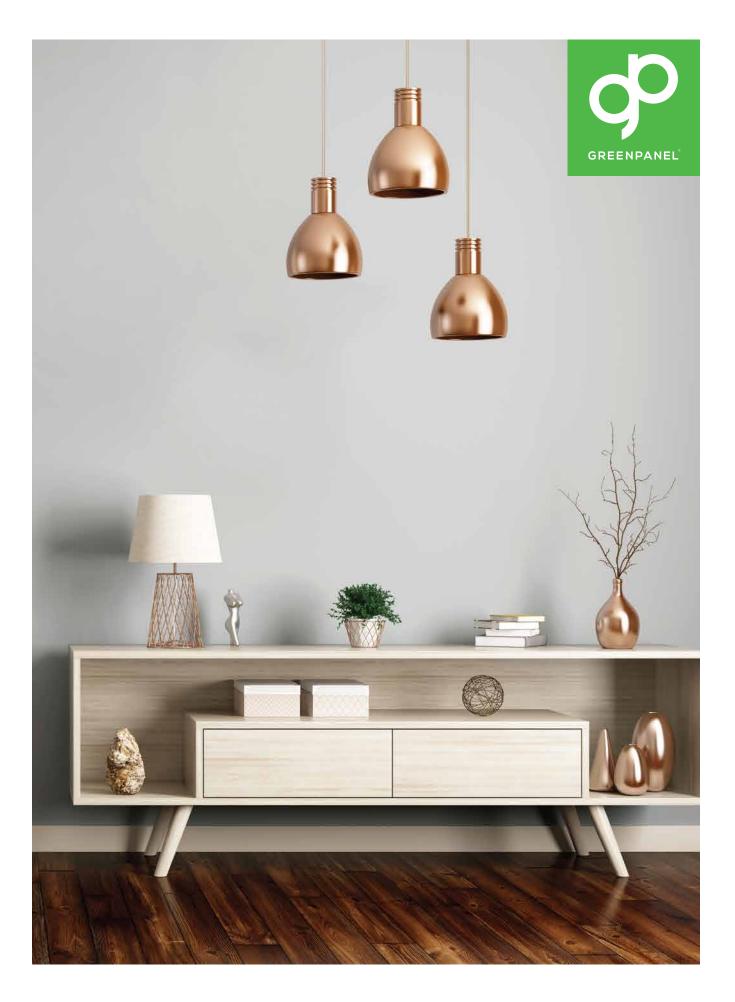
(Applicable to all thickness levels)

Thickness tolerance	± 0.3 mm		
Length and width tolerance	± 3 mm/m		
Squareness	2 mm/m or 0.2%		
Edge straightness	2 mm/m or 0.2%		

Greenpanel Industrial Grade MDF is also available in the E1 grade Formaldehyde Content (FC) is  $\leq 8.0$  mg/100gm for an oven-dry board.



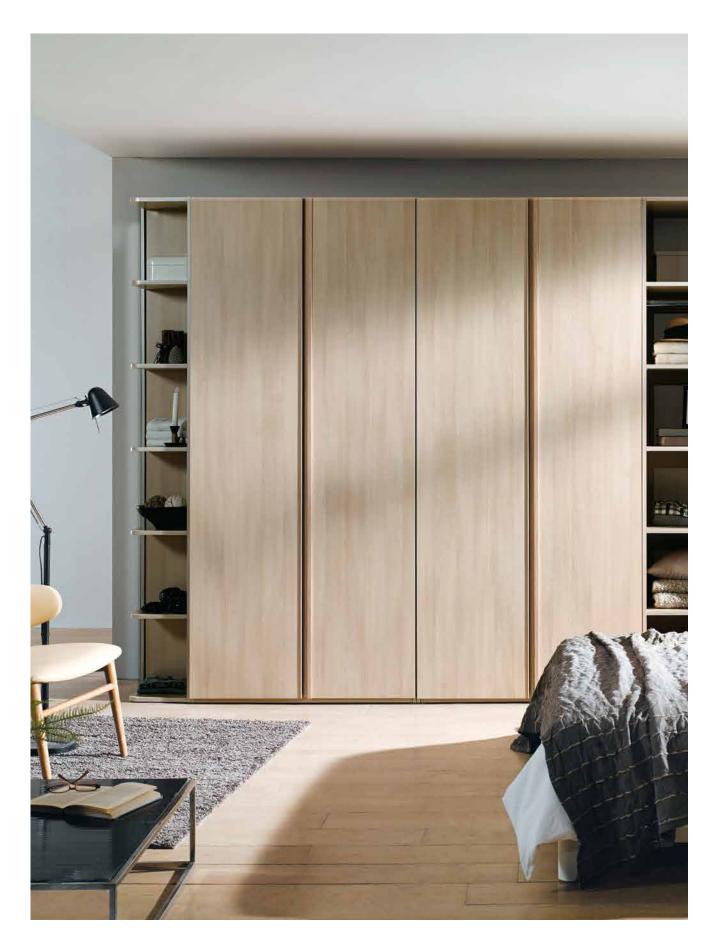






### Greenpanel Exterior Grade MDF Strong inside-out

Greenpanel Exterior Grade MDF is an engineered wood panel product that's homogenous and consistent, from surface to core. It is known for its versatility, high quality, superior design capabilities and environmental stewardship.



As per the latest BIS Standard IS 12406, Greenpanel Exterior Grade MDF can be used for a wide range of exterior applications as it is water resistant. Thanks to the high-quality melamine resin utilised there is strong internal bonding between fibres which leads to dimensional stability and prevents it from swelling, even where there is high moisture content. In addition it is also virus, fungus, termite resistant and borer proof.

# Wide Range

Our range of products is available in several sizes and thicknesses.

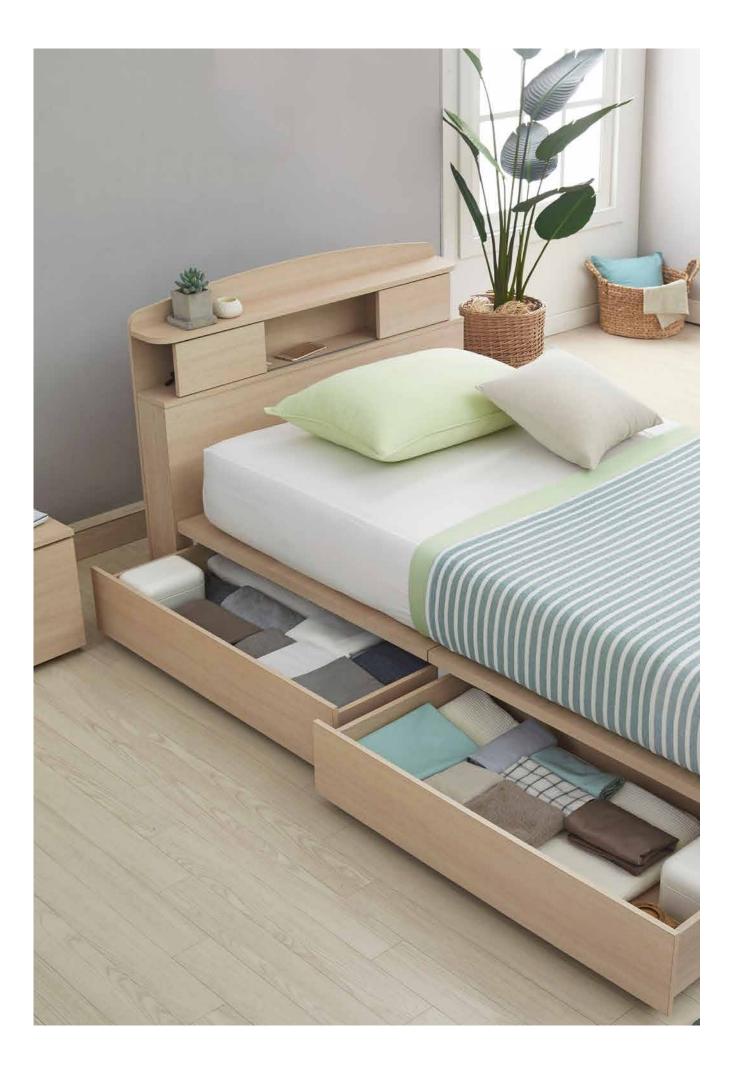


# Size (millimeters)\*

- MDF Size: 1830 mm x 1220 mm, 2440 mm x 1220 mm and 2440 mm x 1830 mm
- Special Size: 1830 mm x 0915 mm, 1830 mm x 1525 mm and 2135 mm x 0915 mm
- Pre-laminated MDF Size: 2440 mm x 1220 mm

# Thickness (millimeters)\*

3.3 mm, 5.5 mm, 7.5 mm, 11 mm, 16.5 mm, 17 mm and 25 mm
 \*Size & thicknesses can be customized as per the MOQ and discretion of Greenpanel.





# 8 Reasons to buy Exterior Grade MDF

- Limitless applications
- Easy to mill High density enables the board to be milling friendly
- Support for high loads Load bearing capacity
- Dimensional stability Uniform surface all-across irrespective of the weather. Resistant to warping and bending.
- Manufactured from selected hardwood timber
- Fungus, termite resistant and borer proof
- Bonded with high-quality MUF resin that enhances water resistance and the overall performance of the MDF board
- Can be easily cut, shaped, routed, moulded and bored with woodworking equipment and tools

### Characteristics

Greenpanel Exterior Grade MDF is a highly recommended wood panel material for 'Residential-Commercial spaces' and 'dry to high humidity prone interior applications'.

### Recommended Applications

The overall strength and smooth surface of the MDF board makes it suitable for painting and provides a uniform substrate for overlaying. Due to its homogenous structure, Exterior Grade MDF boards can be milled in 3D and then painted.

Greenpanel Exterior Grade MDF is recommended for furniture, retail fixtures, bathroom cabinets, kitchen cabinets and shutters, vanity cabinets, shelves, doors and cupboards.

# Technical Specifications

(As per BIS standard IS 12406)

PROPERTIES	UNIT	GREENPANEL E	XTERIOR GRAD	E MDF BOAR	D RESULTS	(AS PER TH	CKNESSES)
Thickness	mm	>2.5 to 4	>4 to 6	>6 to 9	>9 to 12	>12 to 19	>19 to 30
 Density	kg/m³	760-770	740-750	740-750	720-730	710-720	690-700
 Moisture content	%	5-10	5-10	5-10	5-10	5-10	5-10
Thickness swelling (24 hrs)	% Max	30	18	12	10	8	7
Modulus of Rupture (Min)	N/mm²	27	27	27	26	24	22
Modulus of Elasticity (Min)	N/mm²	2800	2700	2700	2500	2400	2300
Internal Bond Strength (Min)	N/mm²	0.7	0.7	0.7	0.65	0.65	0.60
 Internal Bond Strength (Min)							
After Cyclic Test	N/mm²	0.35	0.35	0.3	0.25	0.2	0.15
OR							
After Accelerated Water Resistance Test	N/mm²	0.2	0.2	0.15	0.15	0.12	0.12
Screw Withdrawal Strength (Min)							
Face	N	1250	1250	1250	1250	1250	1250
Edge	N	NA	NA	NA	NA	850	850
Formaldehyde content (FC)	mg/100 gm for oven dry board	E2 - 8 < FC ≤ 30					



# Dimensional Tolerance

(Applicable to all thickness levels)

Thickness tolerance	± 0.3 mm		
Length and width tolerance	± 3 mm/m		
Squareness	2 mm/m or 0.2%		
Edge straightness	2 mm/m or 0.2%		

### Emission Class

CARB, E1 & E2 Formaldehyde Content (FC) is ≤ 8.0 mg/100gm for an oven-dry board for E1 Standards Adheres to BIS Standards 12406 Colour Pink

# Greenpanel Exterior Grade MDF adheres to the following International Standards

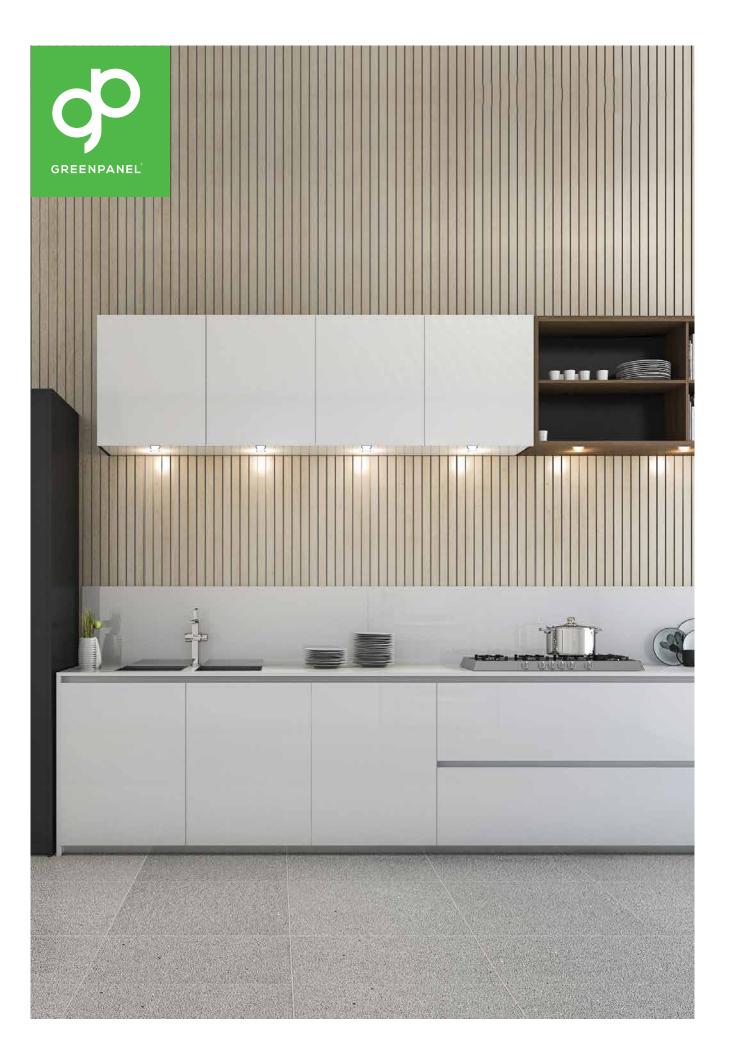
- BS EN 622-5/2009 (British Standards)
- ISO 16895-2016 MR 2 (GP, FN) (Global Standards)
- JIS 5905-2003 (Type 25 & 30) (Japan)

# Certificates

ISO 9001: 2015, ISO 14001: 2015, OHSA 18001: 2007, FSC, CARB, EPA and Green building certificates. The Andhra Pradesh Plant is Green Gold certified.





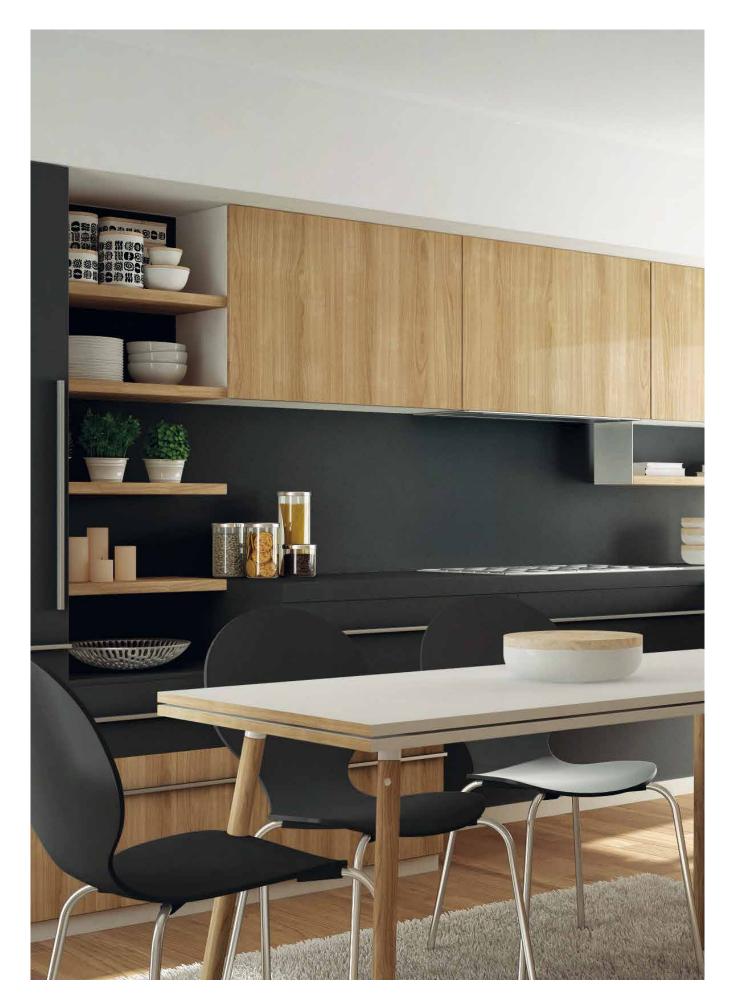


# Club Grade (HDWR)

# Greenpanel Club Grade (HDWR)

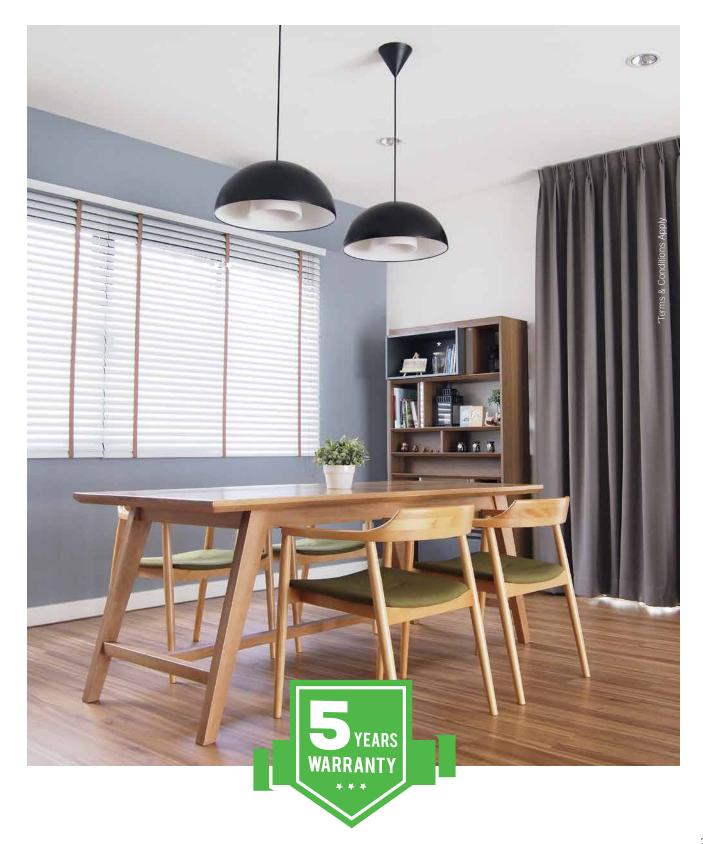
### Resistant to water & fungus. Irresistible application.

Greenpanel Club Grade HDWR (High Density Water Resistant) fibre board is a new class of wood-based panel product and a perfect substitute for plywood. The high-performance board has excellent water resistance, high density, durable and exceptional dimensional stability. That's not all, these boards are resistant to virus, fungus, termites and borer proof. Club Grade HDWR is best suited for a wide range of applications such as paneling, furniture, construction, commercial spaces interiors, wet area application etc.



# 11 Reasons to buy Club Grade (HDWR)

- High density: Strong, durable and easy to mill
- Water resistant: Suitable for wet areas like bathroom cabinets and kitchen shutters
- Super smooth surface: Suitable for paint, polish and lamination
- Virus, fungus & termite resistance and borer proof
- Bonded with high quality MUF resin to enhance water resistance and overall performance of the HDF board
- Can easily be cut, shaped, routed, moulded, bored with wood working equipment and tools
- Can be used for pre and post lamination
- Versatile applications: Hundreds of applications
- Support for high loads: Load bearing capacity
- Dimensional stability: Uniform surface, irrespective of the weather. Resistant to warping and bending.
- 5 years Warranty\*





# Wide | Range |

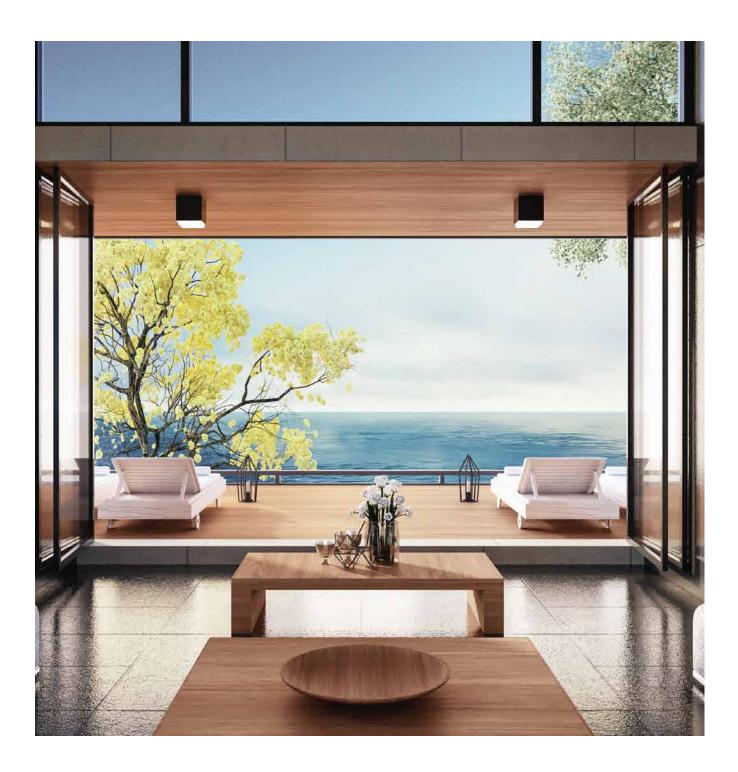
Our range of products is available in several sizes and thicknesses.

## Size (millimeters)\*

MDF Size: 1830 mm x 1220 mm, 2440 mm x 1220 mm and 2440 mm x 1830 mm

# Thickness (millimeters)\*

3 mm, 5.5 mm, 7.5 mm, 11 mm, 16 mm, 16.75 mm & 18 mm
 \*Size & thicknesses can be customized as per the MOQ and discretion of Greenpanel.



### Characteristics

Club Grade (HDWR) is a high density and high water resistant board that makes it ideal for wet area application and has great load bearing capacity. Uniform thickness, super smooth surface, excellent dimensional stability, resistant to virus, fungus, termites & borer proof, high screw holding capacity and internal bond makes Greenpanel Club Grade (HDWR) most suitable for multi-purpose applications.

## **Recommended Applications**

Recommended for furniture, retail fixtures, kitchen cabinets & shutters, vanity cabinets, shelves, doors & cupboards.

### **Emission Class**

CARB, E1 & E2

### Standards

Adheres to BIS Standards 12406 Colour Green

## Technical Specifications

(As per BIS Standard IS 12406)

PROPERTIES	UNIT	GREENPANEL	CLUB GRADE (HI	OWR) BOARD RES	ULTS (AS PER TH	IICKNESSES)
Thickness	mm	>2.5 to 4	>4 to 6	>6 to 9	>9 to 12	>12 to 19
Density	kg/m³	840-850	840-850	840-850	840-850	815-825
Moisture content	%	5-10	5-10	5-10	5-10	5-10
• Thickness swelling (24 hrs)	% Max	15	14	12	10	
Modulus of Rupture (Min)	N/mm²	45	45	45	45	40
Modulus of Elasticity (Min)	N/mm²	4000	4000	4000	4000	3500
 Internal Bond Strength (Min)	N/mm²	1.2	1.2	1.2	1.2	1.2
Internal Bond Strength (Min)						· · ·
After Cyclic Test	N/mm <sup>2</sup>	0.35	0.35	0.3	0.25	0.2
OR After Accelerated Water Resistance Test	N/mm²	0.2	0.2	0.15	0.15	0.12
Screw Withdrawal strength (Min)						**
Face	Ν	3000	3000	3000	3000	3000
Edge	N	NA	NA	NA	NA	
Formaldehyde content (FC)	mg/100 gm for oven dry board	E2 - 8 < FC ≤ 30				

Greenpanel Club Grade HDWR is also available in E1 grade where the Formaldehyde Content (FC) is  $\leq$  8.0 mg/100gm for oven dry board.



## General Tolerance

(Applicable to all thickness levels)

Thickness tolerance	± 0.3 mm
Length and width tolerance	± 3 mm/m
Squareness	2 mm/m or 0.2%
Edge straightness	2 mm/m or 0.2%

# Greenpanel Club Grade (HDWR) adheres to the following International Standards

- BS EN 622-5/2009 (British Standards)
- ISO 16895-2016 MR 2 (GP, FN) (Global Standards)
- JIS 5905-2003 (Type 25 & 30) (Japan)



## Certificates

ISO 9001:2015, ISO 14001:2015, OHSA 18001: 2007, FSC, CARB, EPA and Green building certificates. The Andhra Pradesh Plant is Green Gold certified.



# Versatile MDF

- MDF boards provide good results in the most demanding types of machine work
- They are easy to route, paint, polish and finish
- Easy to achieve intricate and clean cut lattice patterns, high quality laser engraving
- Laminates and veneers fit seamlessly







# Our Network

### North Zone

Ahmedabad

Block A-301, Privilon, Opp. Iscon Temple, BRTS Bus Stop, Iscon Cross Road, S.G. Highway, Ahmedabad 380015 Gujarat M : 9723554173

#### Chandigarh

SCF-No-57, 2nd Floor, Sector-6, Panchkula 134110 Haryana M : 9815202790

Delhi / NCR 2 / 42, W.H.S Kirti Nagar, Opp. DSIDC Complex, New Delhi 110015 M : 8800117079

#### Ghaziabad

D-14, 1st Floor, Patel Nagar 2nd, Ghaziabad 201001 Uttar Pradesh M : 8756666576

#### Jaipur

203-204, 2nd Floor, Krishna Enclave, Plot No. SB-52, Bapu Nagar, Main Tonk Road, Jaipur 302015 Rajasthan M : 7073511113

#### Lucknow

B-50, 1st Floor, Vibhuti Khand, Gomti Nagar, Lucknow 226010 Uttar Pradesh M : 9005051226

## West Zone

#### Indore

E-87, Anurag Nagar, LIG Link Road, Indore 452001 Madhya Pradesh M : 9667328989

#### Mumbai

1st floor, Plot No. 23, Raghuvanshi Mills Estate in Gate, Senapati Bapat Marg, Lower Parel, Mumbai 400013 Maharashtra M : 9310402788

#### Pune

301 / 302, Gera Sterling, Sr. No. 479/480, North Main Road, Koregaon Park, Pune 411001 Maharashtra M : 9730075977

## East Zone

#### Guwahati

H. No. 1, Debadaru Path, Dispur, Guwahati 781006 Assam M : 8011052265

#### Kolkata

Thapar House, 2nd Floor, 163, S.P. Mukherjee Road, Kolkata 700026 West Bengal M : 7596037505

#### Patna

301, 5th Floor, Adharshila Complex, Beside RBI, South Gandhi Maidan, Patna 800001 Bihar M : 7044088443

### South Zone

#### Bengaluru

Jain Heights, B6, 6th Floor, No. 2, Solus, 1st Cross, JC Road, Bengaluru 560027 Karnataka M : 9980111445

#### Chennai

No. 12, Wellingdon Estate, 2nd Floor, Ethiraj Salai, Egmore, Chennai 600105 Tamil Nadu M : 9790937949

#### Hyderabad

11-1-202/3, 2nd Floor, Aghapura, Hyderabad 500001 Telangana M : 9121292678

Kochi 44/246 A, Ashok Road, Kaloor, Kochi 682017 Kerala M : 9746471042



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