

Greenpanel Industries Limited

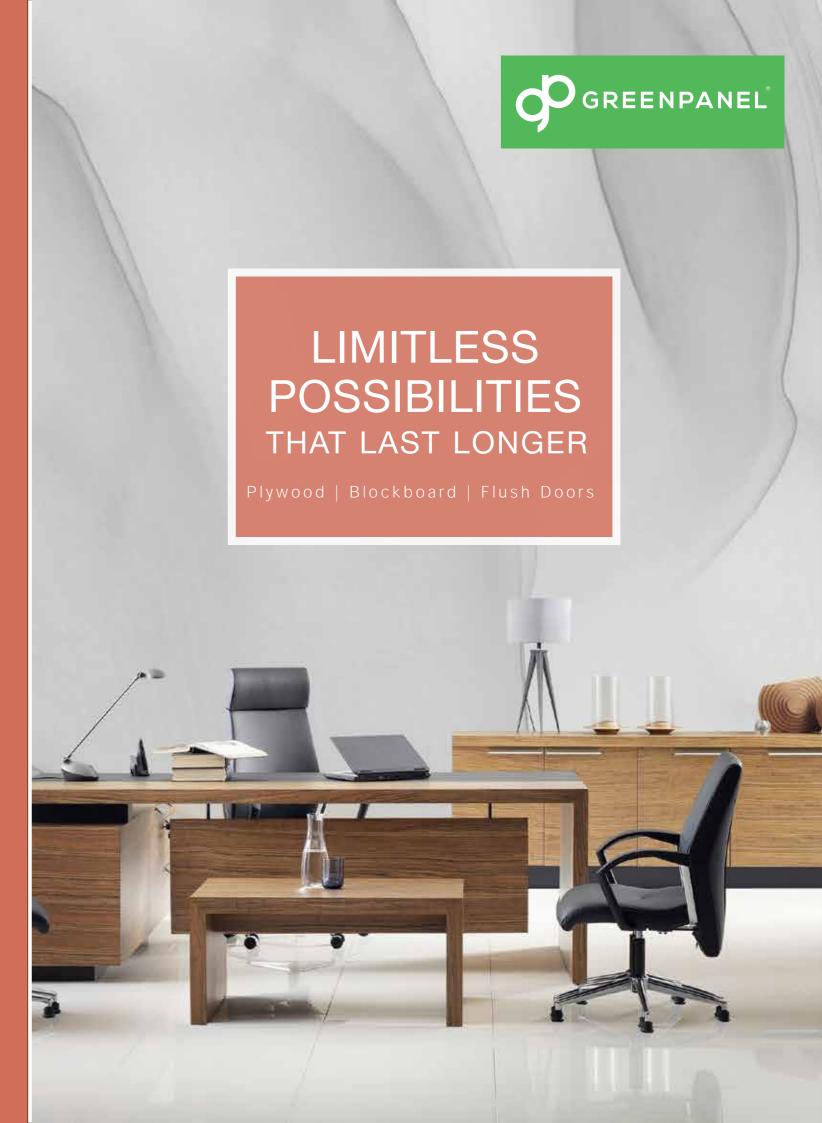
3rd Floor, Plot No.68, Sector 44, Gurugram 122003, Haryana. (Monday to Friday except holidays 10am to 5pm)
Regd. Office: Thapar House, 2nd Floor, 163, S.P. Mukherjee Road, Kolkata, West Bengal - 700026 Tel No : +91 33 4084 0600 CIN L20100AS2017PLC018272

www.greenpanel.com Toll Free No. 1800-102-2999 E info@greenpanel.com

Connect with us on f 📵 in 💆



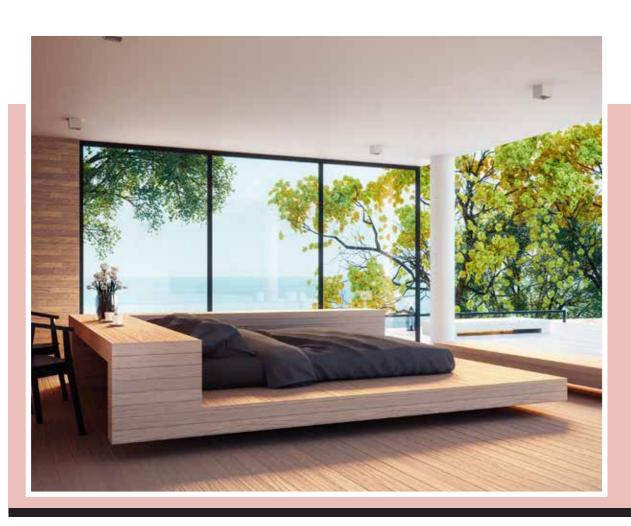




Dreamlike Homes

At Greenpanel, we turn your vision into reality. You seek perfection as you design your perfect space, and we bring you every bit of it, in every piece that you put together to build your dream. Greenpanel, India's largest wood panel manufacturer, is committed to bring the most advanced, good looking products across its portfolio to cater to the rapidly evolving needs of India's interior industry. From leading architects, interior designers, dealers, to your trusted wood contractors, our products are a trusted choice of everyone.

Under the leadership of our Chairman and pioneer of the most iconic brand in the country, Mr. Shiv Prakash Mittal and our MD Mr. Shobhan Mittal we are proud to present the new generation of plywood.





Content

1	Introduction	19	GPRO Plywood
5	Patented Quadra Pro Technology	23	Blockboards
7	Club Plywood	29	Flush Doors
11	Gold Plywood	31	Technical Specifications
13	BWP Plywood		
15	MR Plywood		
17	Accurate 16 mm Plywood		



Why Are We The Most Trusted Choice?

Greenpanel proudly fits the requirements of many national and international standards for different grades of plywood. Our plywood range can stand more than six cycles of boiling and drying, indicating the best-in-class bond quality. Our static bending properties MOR and MOE are higher than the required standard.

Reducing Our Carbon Footprint

We have made it a point to adopt only the best eco-friendly practices across our operations. Our resources are scarce, and it makes sense to use them judiciously. And so, instead of sourcing timber from natural forests, we source it from our agroforestry plantations, which have been setup for this sole purpose. In addition, the chain of custody while procuring raw material is strictly monitored so that each product that we offer can be marked with eco-friendly label.

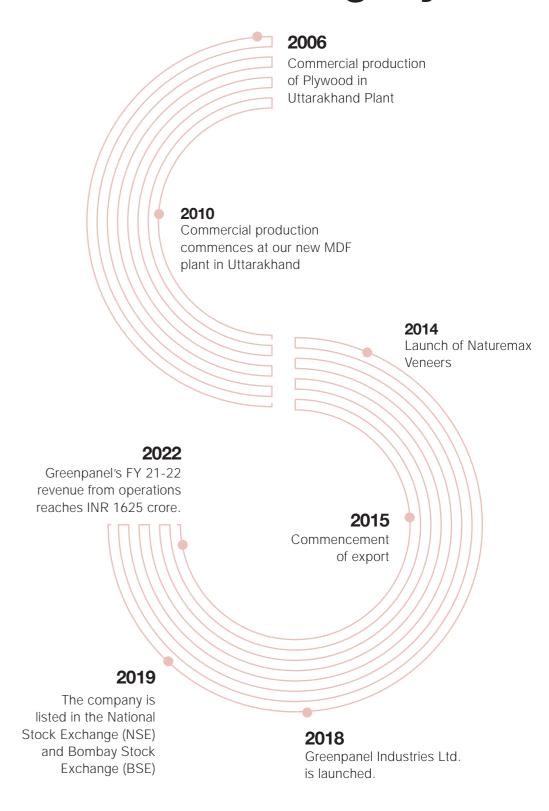


State-of-the-art Manufacturing Facility

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. Our state-of-the-art plants in Uttarakhand and Andhra Pradesh, produce world-class MDF, Plywood, Wooden Flooring and Doors.



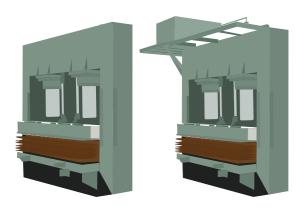
Our Rich Legacy



 \downarrow

Patented Quadra Pro Technology

Greenpanel takes pride in being the pioneer of the revolutionary Patented Quadra Pro Technology, a 4-Stage, multi steps manufacturing process, that ensures no blisters, delamination or warping so that you get the perfect piece of plywood (perfect thickness & defect free surface).







- Log Selection
- Peeling into Veneer
- Tenderising
- Drying
- Veneer Conditioning
- Veneer Preparation (Pre-setting)
- Veneer Screening/Upgradation
- Uniform Thickness Veneer
- Composing of panel / core
- Gluing of the veneer

- Matt Assembly
- Pre-pressing
- Surface Finish of Pre-pressed Matt
- Hot-pressing

- Rough Cutting
- Gluing of Matt Calibration
- Surface Preparation • Pre-pressing
- Inspection Hot-pressing

- Conditioning of Plywood
- Overlaying with Face Veneer Trimming to Final Size
 - Sanding
 - Edge Finish
- Preservative Treatment
- Inspection
- Buffing
- Branding
- Dispatch



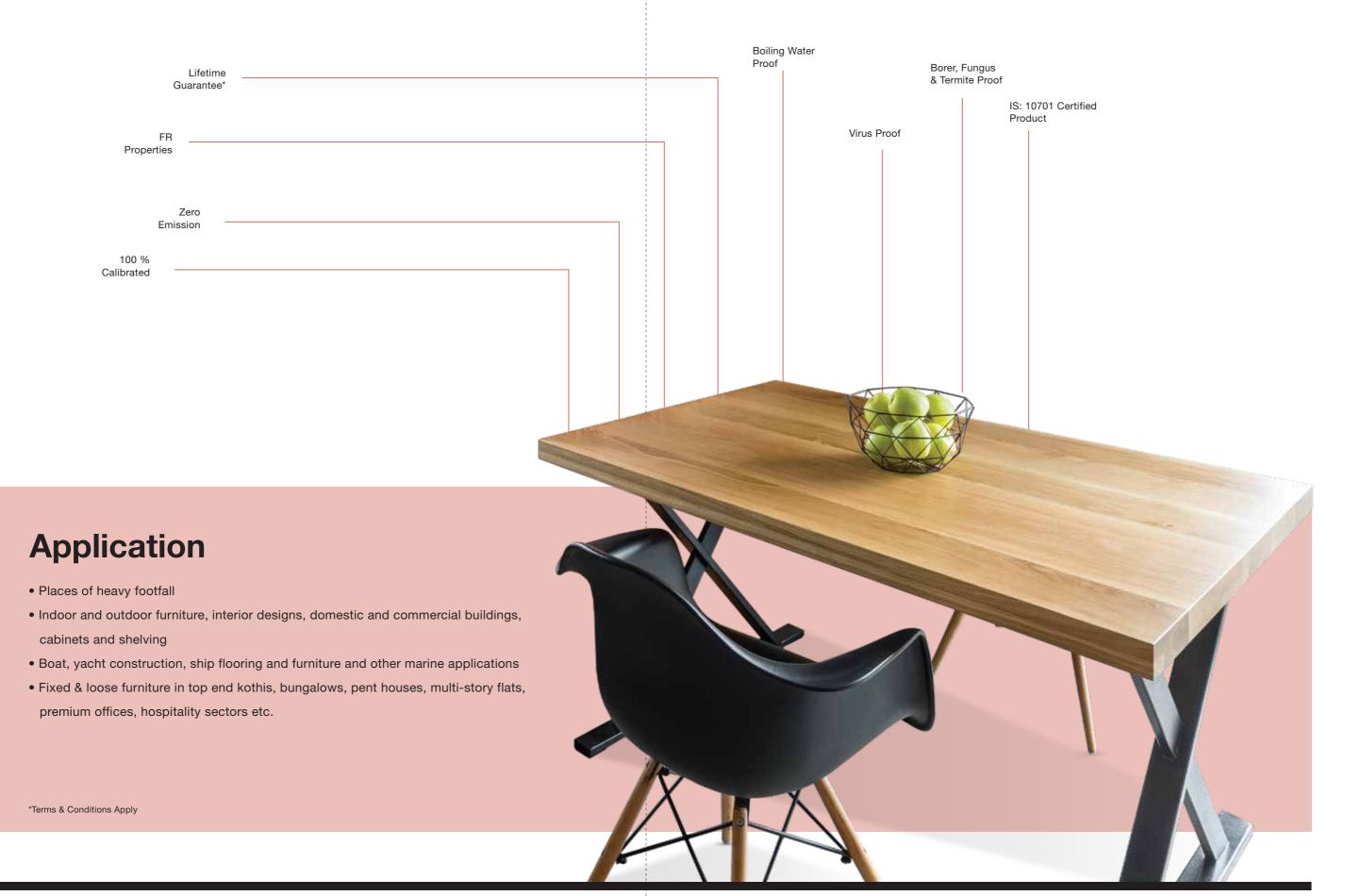


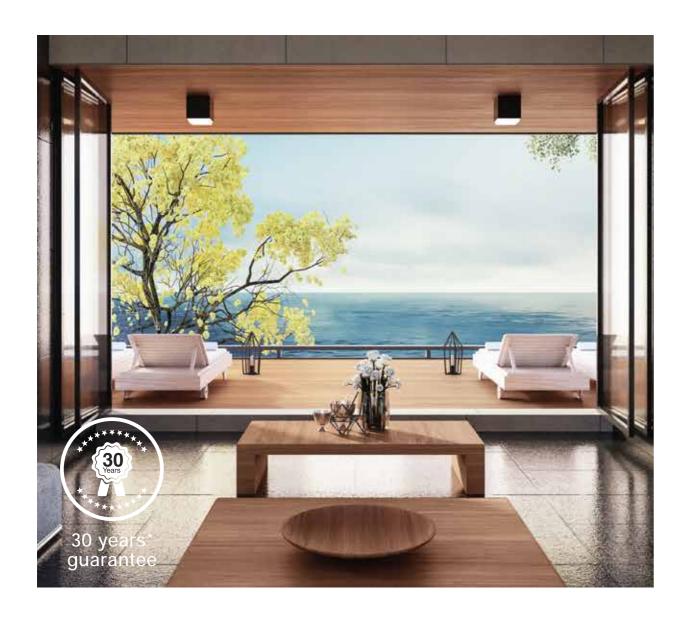


Club Plywood

Greenpanel Club Plywood is a premium quality plywood, from the house of India's largest wood panel manufacturer. It offers high strength and lifelong durability because it conforms to IS 10701. It is made from the best quality raw material which ensures high density, good bending strength, high impact resistance and surface finish characteristics. Owing to the nature of manufacturing plywood, most plywood's emit formaldehyde. But in Greenpanel Club Plywood there are no emissions, making it absolutely safe for indoor applications in homes. Greenpanel Club Plywood is a zero-emission product, which makes sure that the health of the occupants is not compromised and health needs of occupants is duly addressed in the interior sector. This specially developed product comes with a lifelong guarantee, ensuring that you don't have to worry for your piece of art, and have peace of mind for your lifetime. We have also introduced Anti-Virus treatment to our product, making it safe for interiors. This product is virus proof making the surface safe for you.

One of the best safety measures that can safeguard your home is the fire retardant property in a plywood. We have added fire retardant treatment to our Greenpanel Club Plywood. The low-flammability nature of the fire-retardant plywood lowers the chances of spark or ignition. It is treated for flammability which reduces the chances of fire-accidents in your home or office. At Greenpanel, we start this cycle of no-compromises from the very beginning. So, If you're looking for a strong and durable plywood, Greenpanel Club Plywood is your answer. Greenpanel Club Plywood is manufactured using the Patented Quadra Pro Technology with utmost care and love. It is calibrated on both sides for uniform thickness, and it goes through 3 level of preservative treatments with glue line protection to ensure it is borer-proof, microbiological decay resistant and termite proof. Greenpanel Club Plywood ensures lifetime durability and comes with a lifelong guarantee and is CARB certified, to ensure complete peace of mind for the consumers.





Gold Plywood

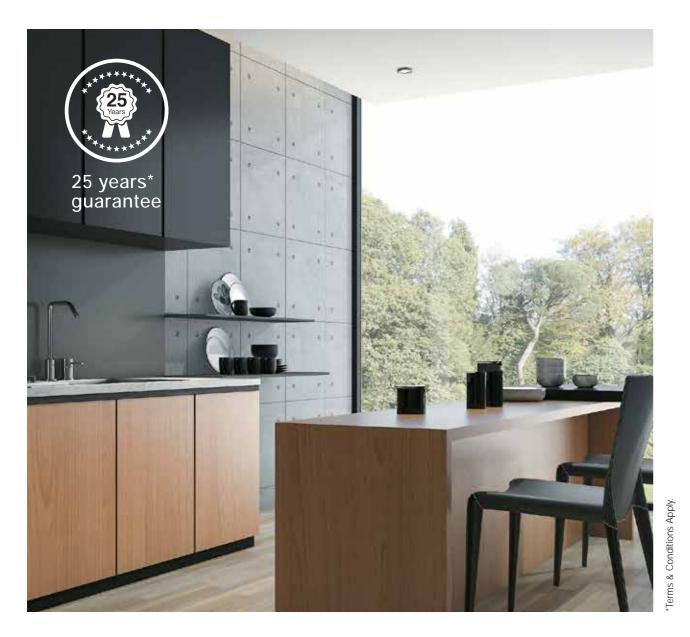
Greenpanel Gold BWP Plywood is the new gold standard in the plywood category that sets the highest benchmarks and comes with 30 years guarantee. It is fully waterproof and specifically designed for applications subject to permanent exposure to the weather or moisture. With proven performance, durability and excellent dimensional stability. It is a premium marine grade plywood with excellent dimensional stability, can withstand continuous frequent shift of dry and wet conditions, and is best suited for applications demanding high strength and rigidity.

Application

- Outdoor furniture
- Shipbuilding and other marine applications
- Areas exposed to moisture, both inside and outside
- Office woodwork
- Partitions and panelling
- Cooling tower applications
- Furniture and kitchen cabinet



erms & Conditions Appl



BWP Plywood

Greenpanel Boiling Water Proof (BWP) Plywood is a waterproof, premium plywood that ensures excellent durability against any weather condition and comes with 25 years guarantee. Made with carefully selected hardwood species timber that give it strength and stiffness, BWP Plywood is capable of handling changing weather conditions (wet and dry) without the risk of delamination, swelling and warping. The BWP type synthetic resin makes it water proof, and preservatives between each layer using the glue line treatment (GLT) process protect it from termite, borer, fungus and virus infestation. Greenpanel BWP plywood is dimensionally stable and extremely sturdy. This product conforms to IS 710 specifications.

Application

- Outdoor furniture
- Shipbuilding and other marine applications
- Areas exposed to moisture, both inside and outside
- Interior design and fittings
- Woodwork and joinery
- Furniture and kitchen cabinet





MR Plywood

Greenpanel Moisture Resistant (MR) Plywood is made for interior spaces that see water activity. Its superior moisture resistant properties and construction not only make it withstand weather variance but also provide it with high strength. MR plywood is borer proof, and resistant to fungus and termite infest ation. It is an interior grade plywood of high-quality construction with excellent durability and good-looking surface. MR plywood is easy to work with and goes perfectly well with finish materials. It is moisture resistant, carpenter-friendly and ideal for interior use and manufacturing of furniture parts and toys.

Application

- Best for partitions, panelling, door panels, cabins and false ceilings
- Other applications include furniture parts, lamps, interiors, toys, souvenirs, musical, instruments, speakers, interior designs and other product fabrication
- High-end packaging





Accurate 16 mm BWP Plywood

Accurate 16mm plywood is a "fully calibrated plywood with accurate thickness". It is produced from rotary-cut, smooth, uniform thickness veneers, sourced from specially selected eco-friendly timber. Its medium and high-density layers of plywood ensure excellent cohesive bonding. Additionally, Accurate 16mm plywood is dimensionally stable and extremely durable with lesser susceptibility to weather variance. Accurate 16mm plywood is boiling waterproof with unextended BWP type resin and made up of 100% composed core. Borer proof and termite resistant - Accurate plywood is special range of 16mm calibrated plywood and is highly demanded by OEMs and interior designers.

Application

- · Modular kitchen, cabinets and shelving
- Joinery, furniture, furniture fitments, interior design, domestic and commercial buildings
- · Vehicle flooring and laminate industry
- Shipbuilding, boat, yacht construction and other marine applications



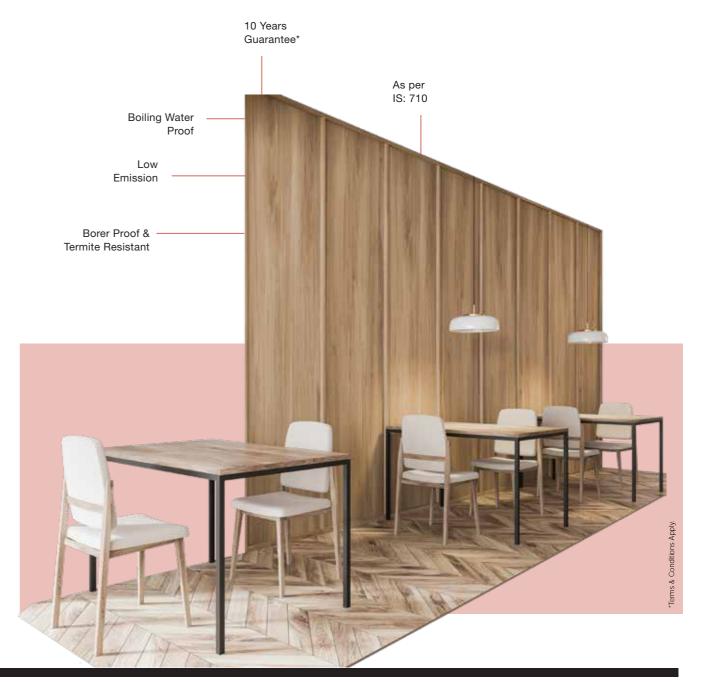


GPRO 710 Plywood

GPRO 710 plywood, "fully loaded plywood", is a versatile product that is superior in quality, craftsmanship and environment sustainability. It is made of carefully chosen timber, has the best of surfaces and is bonded with quality resin. It is high strength plywood that can withstand boiling water, dry heat, pests and extreme weathers. This versatile product adds value to interiors and exteriors in homes, offices and large installations.

Application

- Joinery, furniture, furniture fitments, interior design, domestic and commercial buildings
- Modular kitchen, cabinets and shelving
- Vehicle flooring and laminate industry
- High-end packaging





GPRO MR Plywood

GPRO MR Plywood is sourced from specially selected eco-friendly timber. GPRO MR is borer and termite resistant with lesser susceptibility to weather variance.

GPRO MR plywood is easy to work with and is moisture resistant. This material is ideal for interior use and manufacturing of furniture parts.

Application

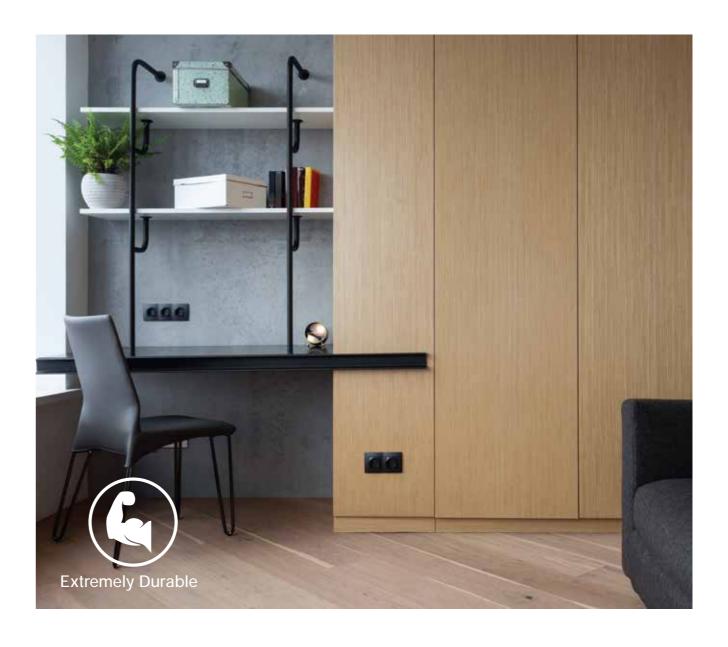
- Best for partitions, panelling, door panels, cabins and false ceilings
- Other applications include furniture parts, lamps, interiors, toys, souvenirs, musical instruments, speakers, interior design and other product fabrication





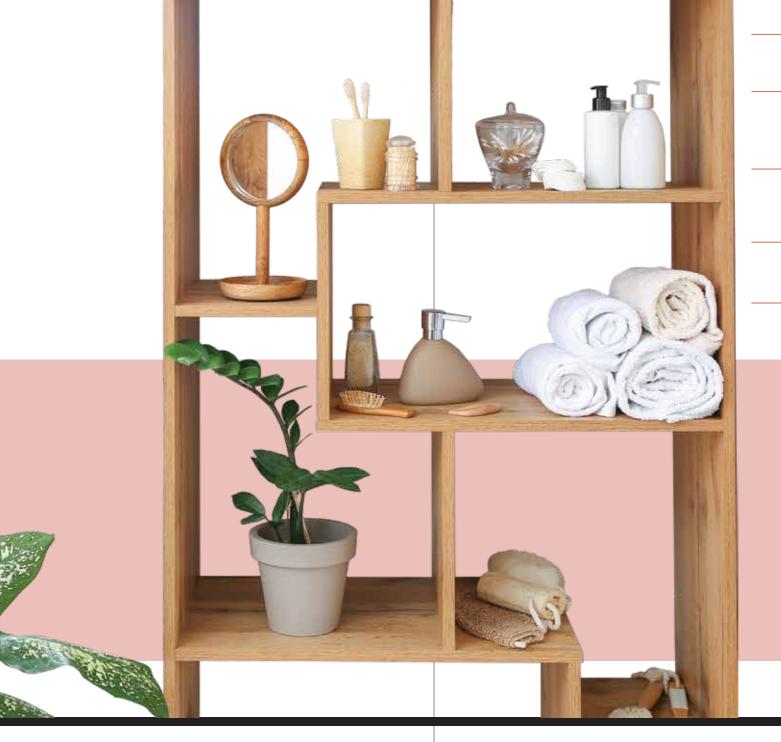
Blockboards

Greenpanel blockboards are superior quality blockboards that are ideal for all weather conditions and applications. Our range of blockboard is made with pine fillers and frame that are uniform in dimension and treated with preservatives, for greater strength and durability.



MR Blockboard

MR Blockboard is a premium quality board with high resistant properties against borer and termites. Face veneer, core veneer & wooden battens in blockboard are well selected and preservative treated against termites and borers. The wooden battens are thoroughly seasoned in scientifically run seasoning kiln plants and then cut with great precision to obtain uniform thickness. Double layered cross bands on top & bottom make the board stiff and warp free. The wood battens are long and systematically arranged in the supervision of qualified supervisor and utmost care is taken to avoid any extra gap between the battens. Regular tests are conducted to maintain the quality of blockboards as per the standards of IS 1659: 2004.



Guarantee

Moisture
Resistant

IS: 1659 Certified
Product

Low
Emission

Borer Proof & Termite Resistant

100 % Calibrated

7 Years*

Application

- Suitable for vertical applications such as doors, cupboards, racks, panel and partition walls
- Furniture, bookshelves and boxes
- Back support of wardrobe shutters and bathroom cabinetries



BWP Blockboard

Greenpanel BWP Blockboard is manufactured from 100% kiln seasoned hardwood species, bonded with BWP type synthetic resin, pressed at very high temperature and pressure that ensures excellent dimensional stability and uniform surface quality. Use of double layered cross bands on top and bottom of the assembly makes the blockboard stiff and warp free.

Application

- Suitable for vertical applications such as doors, cupboards, racks, panel and partition walls
- Furniture, bookshelves and boxes
- Back support of structural work, kitchen and wardrobe shutters and bathroom cabinetries





Flush Doors

Greenpanel flush doors are stiff, impact resistant and possess high strength. Our doors are manufactured from select imported pine timber, are preservative treated and kiln seasoned. Due to their durability and high dimensional stability, these heavy-duty flush doors are used for exterior as well as interior purposes. Our doors are structurally sturdy and good insulators of heat and sound. Double layered cross bands on top and bottom are evenly tenderized and dried to the necessary moisture content as per IS: 1141-1991. Higher quality premium BWP type synthetic resin conforming to IS: 848-1974 is used for bonding, making our doors 100% boiling waterproof.

Application

- Seamless for all classes of interiors and applications including commercial building, homes and offices
- Reception zone, a meeting chamber, an outlet, or any other kind of commercial arrangement
- High-rise apartments, hospitals, offices, hotels, factories, bungalows and villas
- · Kitchen and bathroom



*Terms & Conditions App

Technical Specifications

Greenpanel Club Plywood

S. No.	Test Parameter	Units	Prescribed Value as per Indian Specifications (IS 10701)	Observed Value Club Plywood
1)	Dimensions & tolerance			
	Length	mm	+6 / -0	+2 / -0
	Width	mm	+3 / -0	+1 / -0
	Thickness	%	±5%: 6mm & above	+1.0
	Squareness	%	Max 0.20	0.08
	Edge straightness	%	Max 0.20	0.07
2)	Moisture content	%	5-15	10
3)	Glue adhesion in dry state			
,	Glue shear strength	N	Avg.1,350, Min.1,100	Avg.1,420, Min.1,200
	Adhesion of plies		Min. Pass	Excellent
4)	Resistance to water			
,	Glue shear strength	N	Avg. 1,000, Min.800	Avg.1,370, Min.1,285
	Adhesion of plies		Min. Pass	Excellent
5)	Mycological test			2,00,1011
0)	Glue shear strength	N	Avg. 1,000, Min.800	Avg.1,390, Min.1,340
	Adhesion of plies	14	Min. Pass	Excellent
6)	Static bending strength		141111. 1 (35)	LYCCHCII
0)	Modulus of rupture	N/mm²		
	a) Along the grain	13/111111		
	, , ,		Min. 50	65.89
	i) Average			
	ii) Min. Ind.	N1/ma2	Min. 45	63.56
	b) Across the grain	N/mm²	Min 20	AE 70
	i) Average		Min. 30	45.76
	ii) Min. Ind.		Min. 27	35.91
	Modulus of elasticity			
	a) Along the grain	N/mm²		
	i) Average		Min. 7,500	8,100
	ii) Min. Ind.		Min. 6,700	7,800
	b) Across the grain	N/mm²		
	i) Average		Min. 4,000	4,600
	ii) Min. Ind.		Min. 3,600	4,100
7)	Wet bending strength			
	Modulus of rupture			
	a) Along the grain	N/mm²		
	i) Average		Min. 25	30.6
	ii) Min. Ind.		Min. 22	28.0
	b) Across the grain	N/mm²		
	i) Average		Min. 15	21.0
	ii) Min. Ind.		Min. 13	18.0
	Modulus of elasticity			
	a) Along the grain	N/mm²		
	i) Average		Min. 3,750	4,080
	ii) Min. Ind.		Min. 3,400	3,850
	b) Across the grain	N/mm²	·	
	i) Average		Min. 2,000	2,440
	ii) Min. Ind.		Min. 1,800	2,100
8)	Tensile strength	N/mm²		_,
٥,	Along the grain	1911/11	55	76
	Across the grain		35	51
9)	Compressive strength	N/mm²		
- /	Along the grain		35	47.5
	Across the grain		30	39.8
10)	Panel shear strength	N/mm²	12.5	14.7
11)	Modulus of rigidity	N/mm²	588	650
12)	Rolling shear strength	N/mm²	3	4.5
13)	Retention of preservatives	Kg/m³	12	15.7

Greenpanel BWP, Gold, Accurate and GPRO 710 Plywood

S. No.	Test Parameter	Units	Prescribed Value as per Indian Specifications (IS 710:2010)	Observed Value Greenpanel BWP	Observed Value Greenpanel GOLD	Observed Value Greenpanel ACCURATE	Observed Value Greenpanel G PRO 710
1)	Dimensions & tolerance						
	Length	mm	+6 / -0	+2 / -0	+3 / -0	+2 / -0	+3 / -0
	Width	mm	+3 / -0	+1 / -0	+2 / -0	+2 / -0	+3 / -0
	Thickness	%	±5%: 6mm & above	+1.6	+1.7	+2	+2.5
	Squareness	%	Max 0.20	0.11	0.12	0.1	0.12
	Edge straightness	%	Max 0.20	0.12	0.14	0.1	0.11
2)	Moisture content	%	5-15	8-10	8-10	8-10	8-10
3)	Glue adhesion in dry state	7.5					
-,	Glue shear strength	N	Avg.1,350	Avg.1,445	Avg.1,450	Avg.1,440	Avg.1,410
	and an an angun		Min.1,100	Min.1,280	Min.1,285	Min.1,275	Min. 1,208
	Adhesion of plies		Min. Pass	Excellent	Excellent	Excellent	Excellent
4)	Resistance to water		Willia T GOO	EXOCITOR	EXCONOR	EXOCION	EXCONOTE
7)	Glue shear strength	N	Avg. 1,000	Avg.1,170	Avg.1,175	Avg.1,160	Avg. 1,124
	and onch suchgui	N	Min. 800	Min. 985	Min. 990	Min. 980	Min. 925
	Adhesion of plies	14	Min. Pass	Excellent	Excellent	Excellent	Excellent
5)	Mycological test		IVIIII. F abb	FVCEIGHT	LACCHELIL	FVCEIICITE	LACEIIEN
3)		N	Avg.1,000	Avg 1 140	Avg 1 150	Ava 1 120	Av. 1 101
	Glue shear strength	IN	0 ,	Avg. 1,140	Avg.1,150	Avg.1,130	Avg. 1,121
	Adhanian of n!:		Min. 800	Min. 917	Min. 920	Min. 910	Min. 906
C)	Adhesion of plies		Min. Pass	Excellent	Excellent	Excellent	Excellent
6)	Static bending strength	N1/ 2					
	Modulus of rupture	N/mm²					
	a) Along the grain			_			
	i) Average		Min. 50	53.7	54	52.5	51.7
	ii) Min. Ind.		Min. 45	47.8	48	46.2	46.9
	b) Across the grain	N/mm²					
	i) Average		Min. 30	33.56	33.70	32.1	31.45
	ii) Min. Ind.		Min. 27	29.53	30.00	28.5	28.14
	Modulus of elasticity						
	a) Along the grain	N/mm²					
	i) Average		Min. 7,500	7,785	7,795	7,740	7,654
	ii) Min. Ind.		Min. 6,700	6,936	6,940	6,910	6,873
	b) Across the grain	N/mm²					
	i) Average		Min. 4,000	4,317	4,315	4,300	4,215
	ii) Min. Ind.		Min. 3,600	3,891	3,895	3,820	3,798
7)	Wet bending strength						
	Modulus of rupture						
	a) Along the grain	N/mm²					
	i) Average		Min. 25	28.16	28.20	27.4	26.41
	ii) Min. Ind.		Min. 22	24.21	24.50	24.5	23.7
	b) Across the grain	N/mm²					
	i) Average		Min. 15	17.62	17.71	17.5	16.98
	ii) Min. Ind.		Min. 13	14.98	15.11	14.2	14.54
	Modulus of elasticity						
	a) Along the grain	N/mm²					
	i) Average		Min. 3,750	3,914	3,978	3,970	3,842
	ii) Min. Ind.		Min. 3,400	3,652	3,655	3,650	3,588
	b) Across the grain	N/mm²		-			
8)	i) Average		Min. 2,000	2,340	2,346	2,340	2,248
	ii) Min. Ind.		Min. 1,800	2,011	2,015	2,010	2,009
	Tensile strength	N/mm²		_,	-,	_,0	2,000
٥,	Along the grain	14/1/1111	42	45.5	46.10	47.1	46.05
	Across the grain		25	39.6	40.05	38.4	39.39
	Sum of along & across		84.5	85.1	86.15	85.5	85.44
	Retention of preservatives	Kg/m³	12	12.72	12.65	12.5	12.49

Greenpanel MR and GPRO MR Plywood

S. No. Test Parameter Units Prescribed Value as per Indian Specifications (IS 303:1989) Observed Value Greenpanel MR Mediation Selection Selection MR Mediation Selection MR Mediation MR Mediation MR Selection MR Mediation MR Mediatio						
Length	S. No.	Test Parameter	Units	as per Indian Specifications		Greenpanel
Width mm + 3 mm - 0 mm +2 +1 Thickness % ± 10 % for < 6mm	1.	Dimensions & tolerance				
Thickness %		Length	mm	+ 6 mm - 0 mm	+3	+2
Squareness % 0.2 0.05 0.06 Edge straightness % 0.2 0.07 0.08 2. Moisture content % 5-15 8 8 3. Static bending strength N/mm² N/mm² Modulus of rupture Modulus of rupture 30 34.15 32.96 ii. Average 30 34.15 32.96 ii. Min. Ind. 27 30.21 28.67 b) Across the grain 20.73 17.65 ii. Min. Ind. 13 15.01 17.38 Modulus of elasticity: 3 Along the grain N/mm² 4,000 4,380 4,185 ii. Min. Ind. 3,600 3,950 3,794 5) b) Across the grain N/mm² 2,000 2,349 2,126 ii. Min. Ind. 1,800 2,146 1,945 4. Glue adhesion water resistance test. Min pass standard Excellent Excellent 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5) Min pass standard Excellent		Width	mm	+ 3 mm - 0 mm	+2	+1
Squareness % 0.2 0.05 0.06 Edge straightness % 0.2 0.07 0.08 2. Moisture content % 5-15 8 8 3. Static bending strength N/mm²		Thickness	%	± 10 % for < 6mm	1.5	1.7
Edge straightness				& ±5 % for ≥6mm		
2. Moisture content % 5-15 8 8 3. Static bending strength N/mm² N/mm² Modulus of rupture 0 34.15 32.96 i. Average 30 34.15 32.96 ii. Min. Ind. 27 30.21 28.67 b) Across the grain 20.73 17.65 ii. Average 15 20.73 17.65 ii. Min. Ind. 13 15.01 17.38 Modulus of elasticity: 3 4.000 4.380 4.185 ii. Average 4,000 4,380 4,185 ii. Min. Ind. 3,600 3,950 3,794 b) Across the grain 5,000 2,349 2,126 ii. Min. Ind. 1,800 2,146 1,945 4. Glue adhesion water resistance test. Min pass standard Excellent Excellent 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5) Min pass standard Excellent		Squareness	%	0.2	0.05	0.06
3. Static bending strength N/mm² Modulus of rupture a) Along the grain N/mm² i. Average 30 34.15 32.96 ii. Min. Ind. 27 30.21 28.67 b) Across the grain 1 i. Average 15 20.73 17.65 ii. Min. Ind. 13 15.01 17.38 Modulus of elasticity: 1 a) Along the grain N/mm² i. Average 4,000 4,380 4,185 ii. Min. Ind. 3,600 3,950 3,794 b) Across the grain 1 i. Average 4,000 4,380 4,185 ii. Min. Ind. 3,600 3,950 3,794 b) Across the grain 1 i. Average N/mm² 2,000 2,349 2,126 ii. Min. Ind. 1,800 2,146 1,945 4. Glue adhesion water resistance test. (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5)		Edge straightness	%	0.2	0.07	0.08
Modulus of rupture a) Along the grain N/mm² 30 34.15 32.96	2.	Moisture content	%	5-15	8	8
a) Along the grain i. Average ii. Min. Ind. 27 30.21 28.67 b) Across the grain i. Average 15 20.73 17.65 ii. Min. Ind. 13 15.01 17.38 Modulus of elasticity: a) Along the grain i. Average 14,000 4,380 4,185 ii. Min. Ind. b) Across the grain i. Average 1, Average 4,000 4,380 4,185 ii. Min. Ind. b) Across the grain i. Average ii. Min. Ind. 5, Average ii. Min. Ind. Average ii. Min. Ind. 5, Average ii. Min. Ind. Average ii. Min. Ind. Ii. Average iii. Min. Ind. Average iii. Min. Ind. Iii. Min. Ind.	3.	Static bending strength	N/mm²			
i. Average 30 34.15 32.96 ii. Min. Ind. 27 30.21 28.67 b) Across the grain i. Average 15 20.73 17.65 ii. Min. Ind. 13 15.01 17.38 Modulus of elasticity: a) Along the grain N/mm² i. Average 4,000 4,380 4,185 ii. Min. Ind. 3,600 3,950 3,794 b) Across the grain i. Average N/mm² 2,000 2,349 2,126 ii. Min. Ind. 1,800 2,146 1,945 4. Glue adhesion water resistance test. (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5)		Modulus of rupture				
ii. Min. Ind. 27 30.21 28.67 b) Across the grain		a) Along the grain	N/mm²			
b) Across the grain i. Average ii. Min. Ind. Modulus of elasticity: a) Along the grain i. Average 4,000 4,380 4,185 ii. Min. Ind. b) Across the grain i. Average 7,000 8,3950 1,794 b) Across the grain i. Average N/mm² 2,000 2,349 2,126 ii. Min. Ind. 1,800 2,146 1,945 4. Glue adhesion water resistance test. (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5)		i. Average		30	34.15	32.96
i. Average 15 20.73 17.65 ii. Min. Ind. 13 15.01 17.38 Modulus of elasticity: 3 Along the grain N/mm² 4,000 4,380 4,185 ii. Average 4,000 3,600 3,950 3,794 b) Across the grain 5 Average N/mm² 2,000 2,349 2,126 ii. Min. Ind. 1,800 2,146 1,945 4. Glue adhesion water resistance test. Min pass standard Excellent Excellent (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5) Min pass standard Excellent		ii. Min. Ind.		27	30.21	28.67
ii. Min. Ind. Modulus of elasticity: a) Along the grain i. Average ii. Min. Ind. b) Across the grain i. Average ii. Average N/mm² 2,000 2,349 2,126 ii. Min. Ind. Glue adhesion water resistance test. (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5)		b) Across the grain				
Modulus of elasticity: a) Along the grain N/mm² i. Average 4,000 4,380 4,185 ii. Min. Ind. 3,600 3,950 3,794 b) Across the grain i. Average N/mm² 2,000 2,349 2,126 ii. Min. Ind. 1,800 2,146 1,945 4. Glue adhesion water resistance test. Min pass standard Excellent Excellent (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5) Min pass standard Excellent		i. Average		15	20.73	17.65
a) Along the grain i. Average ii. Min. Ind. b) Across the grain i. Average ii. Min. Ind. b) Across the grain ii. Average ii. Min. Ind. 7,000 1,349 2,126 7,146 1,945 4. Glue adhesion water resistance test. (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5)		ii. Min. Ind.		13	15.01	17.38
i. Average 4,000 4,380 4,185 ii. Min. Ind. 3,600 3,950 3,794 b) Across the grain i. Average N/mm² 2,000 2,349 2,126 ii. Min. Ind. 1,800 2,146 1,945 4. Glue adhesion water resistance test. (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5)		Modulus of elasticity:				
ii. Min. Ind. b) Across the grain i. Average ii. Min. Ind. 2,000 2,349 2,126 ii. Min. Ind. 4. Glue adhesion water resistance test. (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5)		a) Along the grain	N/mm²			
b) Across the grain i. Average ii. Min. Ind. 4. Glue adhesion water resistance test. (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5)		i. Average		4,000	4,380	4,185
i. Average		ii. Min. Ind.		3,600	3,950	3,794
ii. Min. Ind. 1,800 2,146 1,945 4. Glue adhesion water resistance test. (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5)		b) Across the grain				
4. Glue adhesion water resistance test. Min pass standard Excellent Excellent (3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5)		i. Average	N/mm²	2,000	2,349	2,126
(3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in hot air oven as per IS:1734 (Part.5)		ii. Min. Ind.		1,800	2,146	1,945
5. Mycological test N/mm² Min. pass standard Excellent Excellent	4.	(3 cycle of 3 hrs. in warm water @ 60±2°C & 8 hrs. drying at 65±2°C) in		Min pass standard	Excellent	Excellent
	5.	Mycological test	N/mm²	Min. pass standard	Excellent	Excellent



Greenpanel BWP Blockboard

S. No.	Test Parameter	Units	Requirement as per IS:1659 : 2004	Observed Value BWP Blockboard
1.	Dimensions & tolerance			
	Length	mm	+ 6 mm - 0 mm	+1
	Width	mm	+ 3 mm - 0 mm	+1
	Thickness	%	± 5 %	2
	Squareness	%	0.2	0.15
	Edge straightness	%	0.2	0.15
2.	Dimensional change caused by humidity			
	a. Maximum local planeness		< 1/150	1/380
	b. At extreme range of humidity		No delamination	No delamination
3.	a) Modulus of elasticity	N/mm ²		
	Along the grain			
	i. Average		5,000	6,667
	ii. Min. Ind.		4,200	5,994
	b) Modulus of rupture	N/mm ²		
	Along the grain			
	i. Average		> h50	58
	ii. Min. Ind.		42	56
4.	Resistance to water test (72 hrs. boiling)		Min. pass standard	Excellent
5.	Spot test		Through and through	Confirms
			penetration of	
			preservative chemicals	

Greenpanel MR Blockboard

S. No.	Test Parameter	Requirement as per IS:1659: 2004	Observed Value MR Blockboard
1.	Dimensions & tolerance		
	Length (mm)	+ 6 mm - 0 mm	+ 3
	Width (mm)	+ 3 mm - 0 mm	+ 2
	Thickness (mm)	+/- 5 %	+ 1.75
	Squareness	0.20%	0.09
	Edge straightness	0.20%	0.08
2.	Dimensional change caused by humidity		
	Change in length		
	a) From 65% RH to 90 %RH	+/- 1	+0.01
	b) From 65% RH to 40 %RH	+/- 1	-0.01
	Change in thickness		
	a) From 65% RH to 90 %RH	+/- 1	+0.01
	b) From 65% RH to 40 %RH	+/- 1	-0.01
	Maximum local planeness	Not greater than 1/150	1/365
	At extreme range of humidity	No delamination	No delamination
3.	a) Modulus of elasticity (N/mm²)		
	Along the grain		
	i. Average	4,000	5,407
	ii. Min. Ind.	3,400	5,196
	b) Modulus of rupture (N/mm²)		
	Along the grain		
	i. Average	40	60.47
	ii. Min. Ind.	34	56.3
4.	Resistance to water test	Min. pass standard	Excellent
	(60±2 °C in warm water for 3 hours)		
5.	Mycological test	Min. pass standard	Excellent
6.	Spot test	Through and through penetration of	Confirms
		preservative chemicals	

Greenpanel Flush Doors

S. No.	Test Parameter	Units	Requirement as per IS:2202(Pt-I): 1999	Observed Value Flush Doors
1	Dimensions	mm		
	Length	mm	± 5 mm	1.5
	Width	mm	± 5 mm	0
	Thickness	mm	± 1 mm	0.12
			Variation in the thickness between any	0.55
			two points not more than 0.8 mm	
	Squareness	mm	Deviation not more than 1 mm per 500 mm length	0.4
2	General flatness	mm	Twist, cupping & warping not greater than 6 mm	3
3	Local planeness	mm	Depth of deviation not greater than 0.5 mm	0.15
4	End immersion test		No delamination	Confirms
5	Glue adhesion test		No delamination	Confirms
6	Knife test		Minimum pass standard	Excellent
7	Impact indentation	mm	No cracking, tearing or delamination	Confirms
			Depth of indentation not greater than 0.2 mm	0.14
8	Slamming		No visible damage after 50 drops	Confirms
9	Flexure (deflection)	mm	Deflection at maximum load not greater than	
	15 mins after loading 50 Kg		1/30 of length & 1/15 of width, whichever is less	55.62
	3 mins after load removal	mm	Residual deflection not greater	2.44
			than 1/10 of maximum deflection	
10	Shock resistance			
	Soft and light body impact		No visible damage	Confirms
	Soft and heavy body impact		No visible damage	Confirms
11	Buckling (deflection in mm)		No deterioration	Confirms
	After 5 mins of 40 Kg loading		Initial deflection not greater than 50 mm	43.72
	15 mins after load removal		Residual deformation after 15 minutes of unloading not greater than 5 mm	3.17
12	Edge loading (deflection)			
	After 15 mins of 100 kgs loading	mm	Deflection at max. load not greater than 5 mm	3.18
	3 mins after load removal	mm	Residual deflection after removal of load	0.35
			not greater than 0.5 mm	
	Lateral buckling		Not more than 2 mm during loading	1.22
	Residual lateral buckling		No residual lateral buckling after load removal	Confirms
13	Screw withdrawal strength	N	Not less than 1,000	2,000
			Surface condition: no visible damage to the surface either by delamination of extra chipping off at the points of withdrawal	Confirms
14	Varying humidity test		No visible warping, twisting or delamination	Confirms
			Maximum departure from the general	0.47
			planeness not more than 1 mm	
			Recovery – At least 90% of the change in dimension	99.02
15	Misuse		No permanent deformation of the fixing or any	Confirms
			other part of the door set in hindering its	
			normal working after test	
			normal worthing after test	

Certificates

Greenpanel is certified with- ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 FSC-C099985, CARB, EPA, IGBC, CE.

