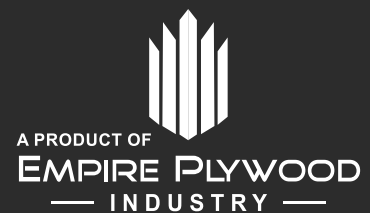


Get in touch

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**EMPIRE**<sup>®</sup>

PLY | BOARD | DOOR

Zindagi Bhar  
Sath Nibhaye...



# I ntroduction

We, Empire Plywood Industries are an ISO 9001:2001 certified organization that enters into the furniture industry in 2001. With our consistent efforts and hard work, we are able to achieve a leading position of a Manufacturer, Trader and Supplier of Marine Plywood, Plywood, Block Boards, Flush Doors, Shuttering Plywood, etc. The complete range of Plywood is used for various purposes in corporate offices, government organization, homes, construction sector and furnishing industry.

Offered Empire Plywood are manufactured using supreme grade wood thus, suitable for processing doors, partitions, commercial furniture, windows, home accessories etc.

Zindagi Bhar Sath Nibhaye...

## VISION

We have a vision to make deliver amazing quality of Marine Plywood, Block Boards, Flush Doors, etc. Wit our quality product line, we want to become global supplier so that maximum clients can have the benefit from our offerings. Our team members are passionately working to attain customer satisfaction and their loyalty. We are conducting our business, by giving clients top priority and fulfilling their demands within the stipulated time duration.

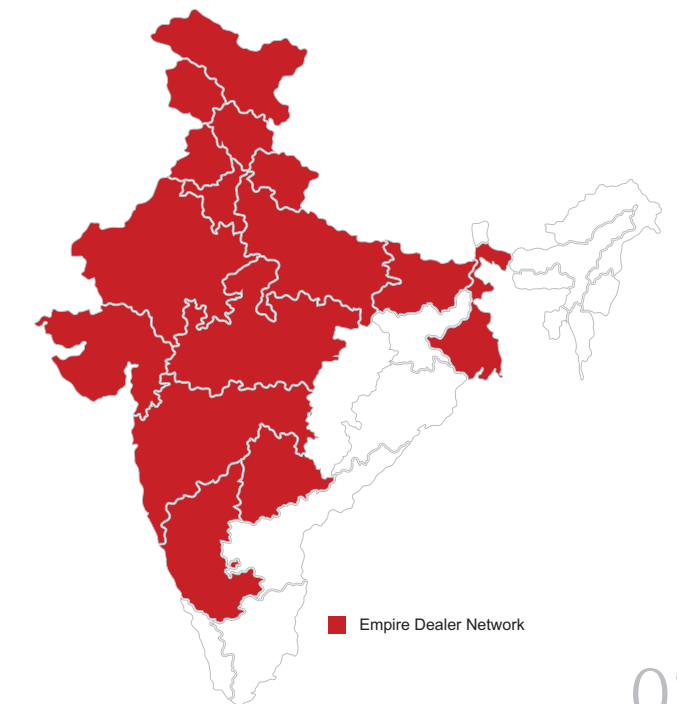
All the credit behind the consistent development of our business goes to the professionals who have rich domain knowledge and vast industry experience. Their efforts are directed towards the timely achievement of the business objectives by accomplishing the allocated tasks efficiently. To motivate the personnel towards their work, we give them several rewards such as promotions, salary appraisals, bonus, incentives and gifts. We also keep organizing various seminars and training sessions in order to sharpen their skills.

## QUALITY CONFORMATION

Being an **ISO certified company**, we are supplying best range of Interior Flush Doors, Marine Plywood, Shuttering Plywood, etc., to the clients. For the processing of these products, we procure finest quality wood from the reputed vendors keep in mind their pricing policy, delivery schedule, market credibility, brand image and business activities. Furthermore, the sourced raw input are go through the stringent quality checks conducted by our professionals. Apart from this, our finished goods, interior flush doors also examined by the quality analyzers on the grounds of texture, hardness, life span, termite resistant and strength. During the inspections, if the controllers find any defected piece they immediately eliminate it in order to make sure that only defect free goods are delivered to the customers .



“Empire Distribution Network”



# Plywood

During manufacturing of EMPIRE PLY , a number of preventive and corrective measures are taken to maintain quality. The use of condensed resin prepared in hitech manufacturing plant is the key point to enhance the life of plywood. The use of modern hardeners and additives provide enormous stability and balance to the entire product range of EMPIRE plywood.

## MR Grade plywood

EMPIRE MR conforms to the ISI and International Standards. It has not only made a goodwill in the market for its quality but also has established a record for consistency and smooth supply to the dealers, architects and interior designers . EMPIRE MR Grade plywood has superb shear strength and resistance to water as the MUF resin contains Melamine and urea & formaldehyde combination in a tailor made proportion.

Empire Plywood is real high-density plywood. It is manufactured with world best high-density timber GURJAN. Wider core and panel are glued with ISI gripe PF resin and pressed in India's best hydraulic press to provide surety of strength and durability in plywood. It is two stage treated plywood, in first stage, GLP is mixed with resin during pressing and in second stage, finished plywood is dipped in anti termite bore chemical solution, which makes it more resistance against microorganisms.

Gurjan is a species of wood generally found in Burma and Malaysia. It is considered the best species for plywood manufacturing. The wood is hard and has thin fiber, which makes it strong at the same time it does not have any problem on nailing. It being oil yielding wood, which is naturally resistant to borers and termites. It's the best wood found is nature that is resistant to termites and borers, It is strong and can withstand higher weight. Due to is high quality, it less prone to warp and considered best wood for manufacturing plywood.

- \* Alternate Plywood
- \* 100% Hardwood Plywood  
(All Red Material)

**Standard Sizes :** 2.44 x 1.22, 2.14 x 1.22, 1.84 x 1.22, 1.84 x 0.76, 2.44 x 0.92, 2.14 x 0.92, 1.84 x 0.92

**Thickness :** 6 mm, 9 mm, 12mm, 16mm, 18mm, 19mm, 22mm, 25mm, 30mm, 35mm.



## TECHNICAL SPECIFICATIONS (IS.303)

TEST	ISI REQUIREMENT	OBSERVED VALUE
Moisture Content	5%-15%	8%
Dimension	Length +5mm, width+2mm Thickness ±6mm - ± 5%, -6mm - ± 10%	Within limit
Sp. Gravity		>7
Resistance to water(3 cycle of 8 hr boiling & 16 hr Drying at 65 c) Adhesion to piles	Min.Pass Standard	Excellent
Resistance to Micro-organism - Adhesion to piles	Min.Pass Standard	Excellent
Static Bending Test		
a. Modulus of Elasticity		
- along the grain	Avg. Min. 5000 N/sq.mm	5000 N/sq.mm
- across the grain	Avg. Min. 2500 N/sq.mm	3000 N/sq.mm
b. Modulus of Rupture		
- along the grain	Avg. Min. 40 N/sq.mm	56 N/sq.mm
- across the grain	Avg. Min. 20 N/sq.mm	30 N/sq.mm



# Block Board

EMPIRE block board is manufactured with selected and seasoned planks. The planks are treated with preservatives of special quality to resist borer, termite and fungi attack and later kiln dried at a technically laid temperature schedule. EMPIRE boards are very suitable for Indian houses. These boards are available in MR and BWP grade for interior and exterior applications respectively. EMPIRE board has high mechanical strength, is dimensionally stable and warp resistant.

- Available in
- \* Newzealand Pine Block Board
  - \* Popular Block Board

**Standard Sizes :** 2.44 x 1.22, 2.14 x 1.22, 1.84 x 1.22, 1.84 x 0.76, 2.44 x 0.92, 2.14 x 0.92, 1.84 x 0.92  
**Thickness :** 19mm, 22mm, 25mm, 30mm.

### TECHNICAL SPECIFICATIONS (IS:1659)

TEST	ISI REQUIREMENT	OBSERVED VALUE
Dimensional changes caused by humidity a. Changes,mm from 65% RH to 90% RH b. Local Planeness c. At the extreme range of humidity	+1mm Max -1mm Max < 1/150 No de-lamination at the extreme range of humidity	+ 0.50mm - 0.50mm <1/175 No de-lamination observed
Adhesion of the piles	Min.Pass Standard	Excellent
Resistance to water (72 hr boiling)	No de-lamination after 72 hrs boiling	No de-lamination
Resistance to Micro organisms	No appreciable sign of separation at edges.	No separation at edges
Modulus of Elasticity	Min. 5000 N / sq.mm	6050 N /sq.mm
Modulus of Rupture	Min. 50 N / sq.mm	61N/sq.mm

# Flush Door

EMPIRE flush door is a durable product known for its excellent quality, exceptional finish and unique dimensional stability. It is made of hardwood frames and accurate battens. It is evenly constructed with some species of timber that matters the most in providing longer life. Stiles, rails and wooden strips are kilnseasoned and are treated with eco-friendly preservatives. BMP grade of Phenol Formaldehyde resin is used for bonding the layers. The phenolic resin conforms to IS 848:1974 specifications, which is mixed with unique additives to enhance the protection characteristics.

EMPIRE Flush doors have an extra lock rail that provides sufficient strength for fitting of hinges and anti deviation resistance. The complete testing of Flush door enables the company to render assured strength, safety and peace.

Available in

- \* Newzealand Pine Flush Door
- \* Popular Flush Door

**Sizes :** Customized sizes and thickness available.

**Thickness :** 30 mm, 32mm, 35 mm, 38 mm.

## FEATURES:

- Manufactured with Ira technology for higher bonding
- Free from corrugation and roughness
- High screw holding capacity
- High shock resistance
- Boiling water proof .
- Smooth surface
- lab tested and eco friendly
- Zero gap and zero bending



TECHNICAL SPECIFICATIONS (IS.2202)

TEST	ISI REQUIREMENT	OBSERVED VALUE
Dimension	Length, Width -+ 5mm Thickness -+ 1mm	Within limits
Squareness	Deviation not more than 1mm on a length of 500 mm	Deviation below 1mm
General Flatness	Twist, cupping, warping not to exceed 6mm	
Local Planeness	Depth of deviation at any pt. to be less than 0.5mm	Within limits
Impact Indentation Test	Depth of Indentation not to exceed 0.2mm	Within limits
Edge Loading Test	Deflection of edge with max. to be less than 5mm	Within limits
Shock Resistance Test	No visible defect after test	No visible defects
Buckling Test	Initial deflection < 50mm Residual deflection < 5mm	Within limits
Slamming Test	No visible damage after test	No visible damage
Misuse Test	No deformation after test	No deformation
Varying Humidity Test	No visible warping, twisting or de-lamination	No such defects observed
End Immersion Test	No de-lamination at the end	No de-lamination
Knife Test	Minimum pass standard	Excellent
Glue Test	No de-lamination	No de-lamination
Screw Withdraw Test	Load to withdraw screw to be more than 1000N	Load -> 1000N

# Shuttering Ply

EMPIRE Film face densified shuttering plywood is a product for high-end construction uses. The phenol film plywood has a coated, glossy surface, which gives the product long life and great value in terms of re-use. This plywood withstands the corrosive action of cement, water and sunlight. An external coating of Phenolic Polymer film made in-house with imported craft paper gives a super smooth, uniform surface finish.

Precaution to enhance the life of film face plywood:

1. Do not drag or drop from height.
2. Stack on flat surface .
3. Clean both side surfaces after use .
4. Apply mould oil after 3-4 uses.
5. Use sealant on cut edges.
6. Use minimum screw to fix the film face plywood
7. Use putty in the screw holes.

EMPIRE FF DSP has several advantages over ordinary film faced ply:

- It gives more number of repetitions.
- Provides smooth surface to concrete form work.
- It is economical in ratio to its number of uses.

**Thickness:** 12mm, 16mm, 18mm & 21 mm

**Size:** 2440mm x 1220mm

**Application :** Building, bridges, Heavy Industry & Structures etc for use on walls, slabs, columns and beams etc.

## TECHNICAL SPECIFICATIONS (IS.4990)

TEST	ISI REQUIREMENT	OBSERVED VALUE
Moisture Content	5%-15%	8%
Glue shear strength (Dry State)	Min. Ind. 1100 N Min. Avg 1350 N	1310 N 1520 N
Adhesion to piles	Minimum pass standard	Excellent
Glue Shear strength (after 72 hrs. Boiling)	Min. Ind. 800 N Min. Avg 1000 N	1080 N 1250 N
Adhesion to piles	Minimum pass standard	Excellent
Mycological Test	No sign of separation	No separation
Glue Shear strength	Min. Ind. 800 N Min. Avg 1000 N	1080 N 1250 N
Tensile strength		
Along the grain-	32.5 N/ sq.mm	46.5 N/ sq.mm
Across the grain -	22.5 N/ sq.mm	32.2 N/ sq.mm
Sum of the tensile strength	60.0 N/ sq.mm	64.7 N/ sq.mm
Static Bending Strength		
Modulus of Elasticity		
- Along the grain	8000 N/ sq.mm	9100 N/ sq.mm
- Across the grain	4000 N/ sq.mm	4320 N/ sq.mm

# Marine Ply

EMPIRE marine ply can withstand severe climatic conditions. In order to maintain good quality standard, quality veneers of uniform thickness are bonded with BWP grade of P.F. resin conforming to IS 848:1974. finally it is treated in a vacuum pressure impregnation plant, using specified quality of preservatives to render it resistant to marine organisms.

Every sheet of marine plywood is checked thoroughly for getting the assured quality. Although, routine vigilance of quality is done at every step but the EMPIRE team makes sure that every piece should undergo double checking by technically trained professionals.

EMPIRE marine ply can withstand rigorous climatic conditions, alternative dry and wet weather of coastal areas. This marine ply is dimensionally stable and ideal for long lasting services even in very humid and sea side areas. It can resist boiling water up to unexpected extent.

It can be widely used in ships , bus and truck bodies , railway coaches, kitchen accessories , sign boards , paneling ,partitions , bathrooms for high quality.

**Suggested uses:** Being highly resistant plywood to changes in weather and atmospheric conditions , Stellar Marine plywood is used for all types of woodworking in marine and sea going vessels . It also finds good application in airfreight container making .Now-a-days, instead of using the normal plywood , people are opting for stellar Marine plywood even in kitchen and bathrooms.



## TECHNICAL SPECIFICATIONS (IS.710)

TEST	ISI REQUIREMENT	OBSERVED VALUE
Moisture Content	5%-15%	8%
Glue Shear strength (Dry State)	Min. Ind. 1100 N Min. Avg. 1550 N	1350 N 1500 N
Adhesion to piles	Minimum pass standard	Excellent
Glue Shear strength (after 72 hrs. Boiling)	Min. Ind. 800 N Min. Avg. 1000 N	1060 N 1250 N
Tensile strength		
Along the grain-	4200 N/ sq.mm	5500 N/ sq.mm
Across the grain -	2500 N/ sq.mm	3950 N/ sq.mm
Sum of the tensile strength	8450 N/ sq.mm	9400 N/ sq.mm
Static Bending Strength		
Modulus of Rupture		
-Along the grain	50 N/ sq.mm	65 N/ sq.mm
-Across the grain	30 N/ sq.mm	40 N/ sq.mm
Modulus of Elasticity		
- Along the grain	7500 N/ sq.mm	8305 N/ sq.mm
- Across the grain	4000 N/ sq.mm	4170 N/ sq.mm

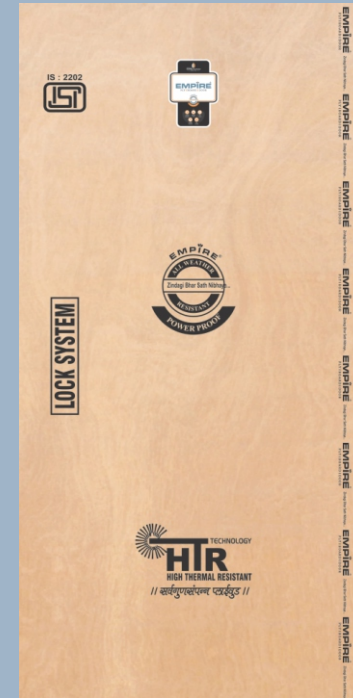


**EMPIRE**<sup>®</sup>  
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PLY | BOARD | DOOR

**P L E A S E N O T E**

ALL THE PRODUCTS PERIODICALLY UNDERGO OUR MOST STRICT AND ACCURATE TESTING TECHNIQUES SO THAT EVEN IF A SINGLE PIECE IS FOUND NOT UP TO BIS SPECIFICATIONS, THE ENTIRE BATCH IS REMOVED . EVEN THE EMISSION FROM OUR FORMALDEHYDE PRODUCTS ARE KEPT UNDER STRICT CHECK ( EVEN BELOW BIS ALLOWANCE) TO ENSURE YOUR

S A F E T Y .



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*bring uniqueness  
to your space with the Empire Ply...*



**WOODY**

**Zindagi Bhar Sath Nibhaye...**