

+91 92108 55555



April 2026 | Year 30

PLY GAZETTE

MONTHLY REPORT ON THE INDIAN PANEL AND SURFACE INDUSTRY

OUR STEEL AND CLUB GRADE JUST GOT TOUGHER

Now Certified for
FIRE RESISTANCE.



Bhutan Tuff Plywood – IS 5509 Certified

Tested to Resist Fire. Built to Protect What Matters.

www.bhutantuffindia.com



Bhutan tuff
#AbTuffKaHaiZamana

011 - 40318148/49

BLACK COBRA[®]
P L Y W O O D

www.blackcobra.org

**DESIGNED TO
FLOW.
BUILT TO LAST.**

Build Bold. Build Beautiful.

- BWP Grade • 100% Hardwood Core • Termite Resistant
- 7x Layer Bonding • ISI Certified

Transform your spaces with the ideal combination of quality and style. **Black Cobra Plywood** is designed to be durable, accurate, and reliable, while harmoniously fitting into any contemporary decor with ease.

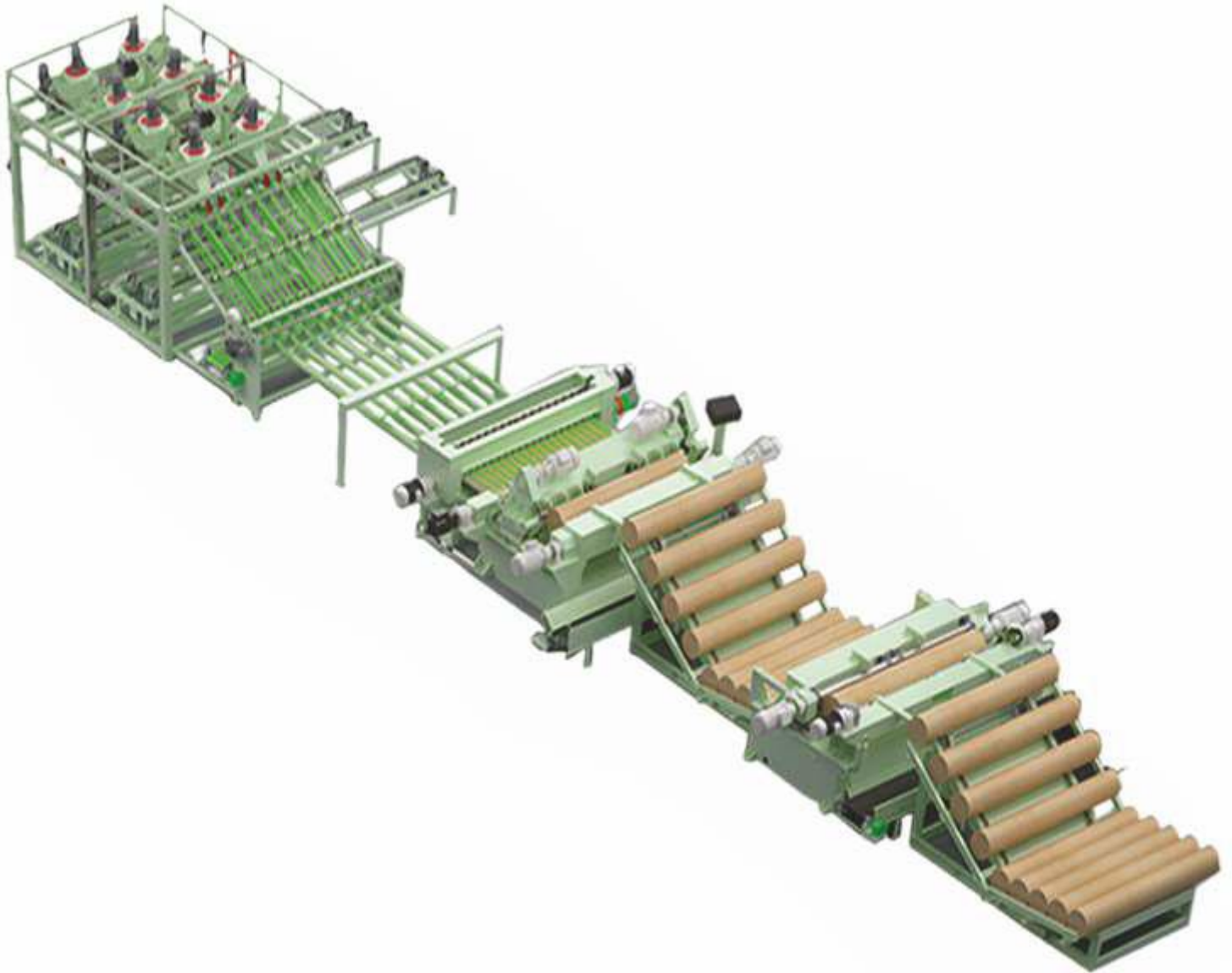
From daring interiors to classic furniture, rely on a base that is both sturdy and beautiful.

Black Cobra Plywood. Your creations start here.



• PLYWOOD • LAMINATES • WPC • PVC • ACP

TUSKAR, GURU AMAR INDUSTRY LIMITED



Branch Office : 9/326 83 ,Mavinchuvadu ,P.O.Mudickal , Perumbavoor ICIN: U29292HR2012PLC0045690)

Head Office : E 30-31 , Industrial Area, Yamuna Nagar - 135001 , Haryana (India)

(M) : +91-98120-25062, +91-98122-00053, +91-8930002211

E-mail : guruamarindia@gmail.com • Web : www.guruamar.com

LEGACY
of eccentric wonders



Scan to Download
All Our New Collection

ARCHITECTURE AND DESIGNERS **1st CHOICE**



+91 98328 22222 (LAMINATES)
+91 98327 22222 (ACP & ALUMINUM)

 care@virgoasia.com

www.virgolam.com



One of the
**WORLD'S
LARGEST**

Laminates Manufacturing
Company

Where elegance embraces
modernity, every detail
defines distinction.



हमेशा साथ निभाए

Your Home's Toughest Defence
Termite-Proof.
Worry-Proof.



Club
SERIES
SIGMA
SERIES



8 X 4
CORE & PANEL



An ISO 9001:2015 Certified Company

Avinash Agro Private Limited

📍 Khanna -Amloh Road, V.P.O. Shahpur -147301(PB.)

Toll Free: 1800891 0025
Email: info@aviply.com
Website: aviply.com

Stunning range



Give your space a fresh verve of design magnificence.



PRODUCT RANGE:

- 1 MM DECORATIVE LAMINATE
- 0.8 MM DECORATIVE LAMINATE
- DOOR SKIN
- LINER

Swanky saga of style with designs that splash elegance.





INTRODUCING INDIA'S FIRST PINEWOOD MDF & HDF BOARDS

- Interior Grade
- Commercial Grade
- Exterior Grade
- High Density MDF
- White MDF



*Using 100% Imported
Wood & Modern
Technology*



Thickness : 2 mm to 5.5 mm

*Redefining quality, consistency & service with our
wide range of MDF boards. Using 100% imported
wood & modern standards, we want to
deliver ultra edge products to our customers.*

Pinewood MDF & HDF BOARD Manufactured by:

VARVO PANELS LLP

Factory: Survey No.270/2, 271/1 & 271/2, Village Chopadava, Taluka Bhachau
Dist. Kutch 370140 (Gujarat) India. **Email:** sales.varvo@gmail.com

Office: No. 4, Second Floor, Plot No. 119, HariKrishna Arcade, Sector 1A, Gandhidham (Kutch)
For Trade Inquiries Contact: +91-99252 36692, +91-94082 47888

Kya Hukum Mere Aaka?

MODAK[®]
Zero-Compromise Ply

MAKE A WISH

Sab Kuch Milega!

PLYWOOD RANGE

FILM FACE PLYWOOD

ENGINEERED DOORS

WPC CHAUKHAT

NATURAL VENEER

LAMINATES



Recon Veneer Range

Available in 10x4

- Nexa Series
(Hybrid/Recon Range)
- Fluted Solid Panel
- Fluted Veneers
- Recon Veneers
- Natural Veneers
- Dyed Veneers
- Smoke Veneers
- Metallic Veneers
- Designer Veneers



INDIA WOODLINE LIMITED

FACTORY-KULTANA BERI ROAD, 11 B. VILLAGE ISMAILA, TEHSIL-SAMPLA,
ROHTAK, HARYANA, PINCODE-124501

✉ woodlineveneers@gmail.com ☎ +91 99 9144 4199

Make Your Space Feel *New*

Also now available

Fresh textures, clean lines, and finishes that instantly

Upgrade The Look Of Any Room.

Range of Products :

LAMINATES | VENEERS | PLYWOOD | ACRYLIC | LOUVERS

India Woodline Limited

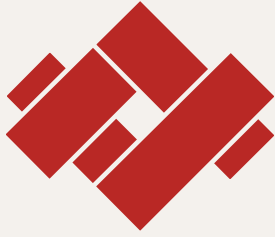
📍 11B, Beri Road Tehsil, Sampla, Dist. Rohtak, Haryana 124 501
☎ +91 9711173385 | ✉ support@woodlinelam.com | 🌐 woodlinelam.com

Scan the QR Code to view the catalogue



Follow Us On





NAIMISH
PLYWOOD | SHUTTERING



Quality
Checked



Eco
Friendly



Termite
Resistant



Better
Surface

NAIMISH PLYTECH PVT LIMITED

🌐 www.naimishply.com ✉ info@naimishply.com

☎ +91 98970 59562 | +91 93199 45731



A18, A19, Industrial Area Phase-2, UPSIDC, Sandila, Hardoi – 241204, Uttar Pradesh, India
Corporate Office: Goldstar Apartment, Shop No. 01, Sector 4A, Vrindavan Yojna, Lucknow – 226029, Uttar Pradesh, India



AMORY MICA
IDEAL INTERIOR

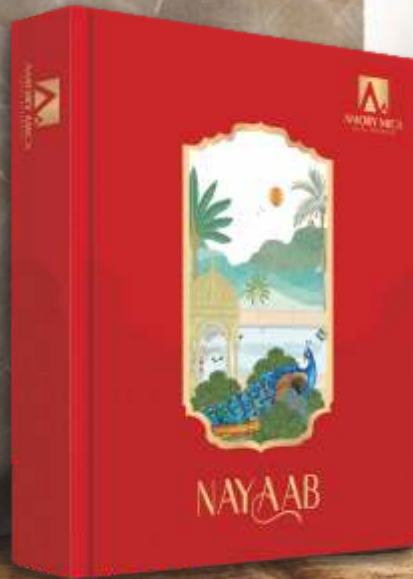
Bold
Finishes
Built to
Endure.

▼ **5013** | Vertical Vibe

▼ **5023** | ASHFORD GREY

▼ **5022** | BLOCK STRIPE

▼ **5211** | MIDNIGHT VEIN



265+
SHADES

22+
TEXTURES

OSWAL LAMINATES

Village-Daulwal, Khasra No. 11/06, 4-5, Hoshiarpur-Dasuya Road, Hoshiarpur, Punjab-144208
amrymica@gmail.com | www.amorymica.com | Customer Care @ 1800-137-1200

PLY GAZETTE

MONTHLY REPORT ON THE INDIAN PANEL AND SURFACE INDUSTRY

★ MDF	26	★ MeraGhar	65
Makers Pass Rising Chemical Costs to Market		Launch Event Gains Industry Attention	
★ Ceasefire	28	★ Amulya Mica	66
Brings Price Relief to Chemical-Dependent Industries		AGNEEPATH Charts Disciplined Growth	
★ Veneer Industry	30	Roadmap FY 2026-27	
Recommends 12% Price Hike Amid Cost Pressures		★ Dubai WoodShow 2026	69
★ Duty Waiver	32	Set to Anchor Global Wood Industry	
Exemption on Key Chemicals Brings		During June, in MENA	
Relief to Panel Industry		★ Phenolic Resins	72
★ Makers Laminates	32	★ SCM	91
Launches 10x4 Signature Range for seamless,		Integrated Innovation Redefines Smart	
high-impact interiors		Manufacturing at Xylexpo 2026	
★ Punjab Plywood Units	34	★ Hindi Section	89 - 96
Cut Operations Amid Chemical Price Surge			
★ Greenply	34		
Marks Earth Day, Advancing Towards			
100 Million Trees Milestone			
★ Century Plyboards	36		
Delivers Solid Growth In Q3 Results			
★ Action Tesa	36		
Launches High-Performance HMR Particle Board			
★ Greenply	38		
Bets on Compliance, Premiumisation			
to Drive Next Growth Cycle			
★ Greenply	46		
Posts Strong Q4 with 86% Profit Surge;			
MDF Expansion Drives Momentum			
★ Punjab	50		
Eyes Agro-Forestry Boost for Wood Industry Growth			
★ FIPPI	52		
Urges Chhattisgarh to Operationalise Centre's			
Revised Forest Norms			
★ HD+MR Particle Board	54		
High-Density Innovation Pushes Particle Boards			
into Retail Spotlight			
★ India-New Zealand FTA	56		
Promises Cheaper Imports, Deeper Economic Ties			
★ Rushil Décor	58		
Charts ₹1,000-Crore Path as Exports,			
Value Addition Drive Growth			
★ Greenpanel Industries Limited	61		
Shobhan Mittal Honoured as CEO of the Year 2026			
★ Crossbond	62		
Signs Ranveer Singh to Power Brand Growth			
★ Virgo Laminates Limited	63		
Launches CROMA+ Catalogue for Modern Interiors,			
with expanded design range			
★ Dorby	64		
Expands Retail Footprint in Punjab, with			
new experience centre in Ludhiana			

EDITORIAL & ADVERTISEMENT OFFICE:

18, Suryodaya Apartment, Opp. Radisson Blu Hotel,
Sector - 12, Dwarka, New Delhi - 110 075 (INDIA)

E-mail: plygazette@gmail.com

Website: www.plygazette.com

FOR ADVERTISING PLEASE CONTACT

+91 98100 57548

Editor : Dev Raj

devplygazette@gmail.com

Associate Editor : S. S. Kaushik

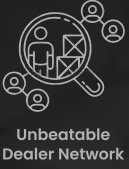
Associate Editor : Anupam

Vol. 30 No. 08 Total Pages – 104 Including Gate Fold
ANNUAL SUBSCRIPTION : Rs. 500 | By Courier : Rs.1200

Responsibility in respect of the advertising material such as logos, pictures and statements, including the ones related to the grant of various certifications, solely lies with our advertiser - patrons. Although every care is taken by the publication in this respect and the advertisements are published in good faith, the publication shall not be responsible for any omissions on this count and consequences arising therefrom. No responsibility is accepted in respect of business dealings and the quality of products and services offered by those advertising in the magazine. The editor does his best to verify information to be published, but does not take responsibility for the accuracy of the said information.

Publisher, printer and owner Dev Raj.

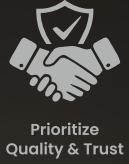
Published from F-6, Basement, Harbans Bhawan-2, Business Centre, Nangal Raya, New Delhi - 110046
and Printed at Haploos Printing House, A-33, Mayapuri Industrial Area, Phase-II, New Delhi - 110064



Unbeatable
Dealer Network



Safelam®
LAMINATES



Prioritize
Quality & Trust

EXPERIENCE ROYALTY

— IN EVERY CORNER OF YOUR SPACE —



SOFT TOUCH



MODERN TEXTURES



IMPORTED DECOR
PAPER



www.safelam.in

connect@safelammica.com

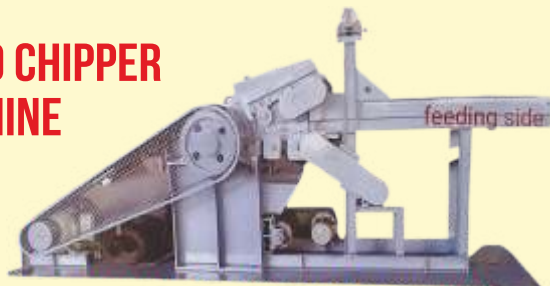
+91 11 45139906, 45139907, 45139908

S.S. STEEL CRAFT INDUSTRIES

MANUFACTURERS & EXPORTERS OF ALL TYPE OF PLYWOOD MACHINERY WITH ADVANCE FEATURES

📍 Vill. Pansara, Behind Sadar Police Station, Saharanpur Road, Yamuna Nagar-135 001 (Haryana) 📞 +91 9355310007, +91 9991831887 ✉ manpreet197111@yahoo.com

WOOD CHIPPER MACHINE



Main Features :

Wood chipper can process branch material, slab, waste veneer, LOG BUCKEL and other wooden fiber and cut them into certain specifications for raw material of shaving board, clipboard, the manmade board and pulp of paper making industry. The machine can cut material into pieces with good quality and wide adoptability.

According to the different thickness of raw material by cutting, feed roller assembly can fluctuate with a certain scope.

GLUE SPREADER



Main Parameters :

- Solid base frame will provide maximum rigidity for continuous high speed operation.
- Power consumption 3 H.P. 1440 RPM.
- High quality rubber covering and wear resisting rubber will ensure long serve with uniform glue coating.
- Large diameters of rubber rollers will ensure uniform application of the glue on the entire surface of the veneer.
- The designed arrangement will allow the fast changing rubber rollers for maintenance.

GLUE KETTLE



Features:

It is manufactured with stainless steel with different type of capacity of glue kettle is prepared with customized size as per the client requirement. Glue Kettle is highly used machine in plywood industry. It is used to make glue and resin purpose.

COMPOSING LINE



Features:

- Core composing has three major advantages: waste reduction, Quality output and manpower saving.
- It helps to join the core with utmost strength and make it streamline in different required standard size for making plywood in different specification.



Elevator for loading & unloading for hotpress

BRUSH SANDING MACHINE



HYDRAULIC SCISSOR LIFT



UPTO 10 TO 30 DELIGHT

CORE DRY PRESS



UPTO 18 TO 20 DELIGHT

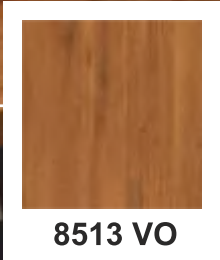


BHARAT DECORATIVE
Simbal Road, Tohana, India



All eyes at the Table

GLO Laminates brings timeless elegance and unmatched durability to every space.



8513 VO

+91 9991845080, 8295224441

PRIZMA
LAMINATES

Elista
DECORATIVE LAMINATE

SARGAM
DECORATIVE LAMINATE

LINO

SHIVATIKA
DECORATIVE LAMINATES



LAMINATES | PLYWOOD | WPC
GHAR SAJAYE SAATH NIBHAYE



4121 RE33
PEARLESCENT CEDRUS
LIGHT



AMULYA MICA 1.25MM IMPERIAL SYNCHRONIZED LAMINATES

The Benchmark of
Premium

 www.amulyamica.com

Pure Marble Aesthetic



A seamless expression of marble inspired design that elevates interiors with subtle sophistication.



12173-03



LINO | Colorpedia | VOGUE DECOR | Natural decor

MG NEXT

www.matchgraphics.in | +91 70696 00000

Bringing you closer with unmatched
Creativity and Quality.



PRODUCT RANGE

- PINE BLOCK BOARD • PINE FLUSH DOORS
- MARINE PLYWOOD • BWR / BWP PLY & BOARD

Jagdamba Dwelling Pvt. Ltd.

VILL. HAFIZPUR, DISTT. YAMUNA NAGAR - 135 001 (HARYANA)
MOBILE : +91 98026 70305



Bonanzlam
Laminates



Divine Beauty

MINIMALISM AT ITS BEST
BRING MAGIC TO YOUR SPACE



AVAILABLE HERE

The exclusivity of ravishing grace

Join us on:  

BONANZLAM LAMINATE

 Near - Kurali, Distt. Ropar, Punjab - 140103

 +91 90561 22222  info@bonanzlam.com  www.bonanzlam.in

PRECISION PERFORMANCE. DELIVERED!
LAMINATES | PLYWOOD | HARDWARES

Tajpuria[®]

PRECISION PERFORMANCE. DELIVERED!
LAMINATES | PLYWOOD | HARDWARES



Tajpuria proudly participated in IndiaWood 2026, one of the most prestigious platforms for the wood and interior industry.

The event marked a significant milestone as Tajpuria successfully exhibited its premium range of plywood and laminates, receiving an overwhelming response from architects, dealers, interior professionals, and freshers entering the design industry.

A major highlight of the exhibition was the launch of Tajpuria's Acrylic Collection, crafted to bring high-gloss elegance, durability, and modern aesthetics to contemporary interiors.

Visitors appreciated the quality, finish, and innovation that Tajpuria continues to deliver to the market.

A heartfelt thank you to all architects, dealers, and industry professionals who visited our booth and made this journey memorable.

Tajpuria — Where Quality Meets Precision.

CORPORATE & REGISTERED OFFICE

📍 102/57, Shiva ji Marg, Lucknow-226018 U.P. (INDIA)
☎ +91 95591 39000

✉ tajpuriagroup@gmail.com
🌐 www.tajpuria.co.in

📷 @tajpuriaply
📘 Facebook.com/tajpuriaply

TAJPURIA



At
india
WOOD

A Successful
Showcase of
Innovation



SCAN QR TO
VISIT OUR
WEBSITE





cosco_plywood
 cosco_plywood
 cosco_plywood

The plywood

that levels up your work



PERFECTION
100%

Cosco Calibrated Plywood delivers zero unevenness and premium strength for superior interiors



www.sagarplywood.com



+91 99962-70775



Sagar Wood Product Pvt Ltd, Old Saharnpur Road Near Aggrasen Chowk, Jagadhri, Yamunanagar(Haryana)

Follow Us:



KRIDHA
PLYWOOD | LAMINATES

Your Partner

in Every Strong Structure.

KRIDHA
DIAMOND
CLUB

QUALITY KI BAAT KRIDHA KE SAATH



Har Haal Mein **BEMISAL**

Laminates | Plywood | Block Board | Door Skin | Shuttering Ply

www.kridhalam.com | Toll Free No:- 1800 274 6911

MDF

Makers Pass Rising Chemical Costs to Market

India's MDF industry is witnessing an abrupt pricing shift, as manufacturers move to pass on escalating input costs to the market. Within less than three weeks, producers have lined up a steep 10% price hike effective 10th April, marking a dramatic reversal in a sector that had grappled with oversupply for over a year.

The development follows an earlier 5% increase, resulting in a cumulative 15% surge in MDF, HDMR, and BOIL-grade boards within a fortnight, the first such consecutive hikes since the post-pandemic phase of 2020. Industry signals suggest this is less a pricing strategy and more a survival response.

According to Ajay Garg of the All India Manufacturers Association, the move is driven by sustained increases in raw material costs, particularly chemicals sourced from conflict-affected regions in the Middle East. Disruptions in supply chains, exacerbated by tensions impacting routes such as the Strait of Hormuz, have sharply inflated input costs for key materials like methanol, a critical

component in formaldehyde resins used across MDF and HDF production.

Despite government intervention to reduce import duties on select chemicals, including methanol, the relief remains marginal. With duties already low, the policy shift has had limited impact on easing cost pressures. Similar pricing trends are now visible across laminate and plywood segments, indicating a broader industry-wide recalibration.

Reports suggest that several manufacturers, both large and mid-sized, are preparing formal announcements, underscoring the urgency of the situation. Market observers note that until geopolitical tensions stabilise and supply routes normalise, price volatility is likely to persist.

For now, the MDF sector appears to be navigating a complex intersection of global disruption and domestic demand, with cost pass-through emerging as the only viable lever to sustain operations.

PLY GAZETTE

MONTHLY REPORT ON THE INDIAN PANEL AND SURFACE INDUSTRY



www.riyom.co.in

ANIBE OF MODERNITY



Discover our exclusive laminate collection, where style meets durability. Designed for modern interiors, our laminates offer rich textures, vibrant colors, and superior finishes.



Riyom Industries Private Limited

Survey No. 57 and 77, Chinnachelmeda Village, Munipally Mandal,
Sanga Reddy District, Telangana - 502345.

Toll free number 9381466944 | Email: sales@riyom.co.in

Ceasefire

Brings Price Relief to Chemical-Dependent Industries

The recent easing of tensions following a ceasefire linked to the US-Iran conflict April 2026 ceasefire has offered a measure of relief to India's wood panel and decorative industry. For over a month, manufacturers had been grappling with sharp increases in the cost of key chemicals, pushing production to the brink.

Early market signals now indicate a marginal correction in prices of critical inputs such as phenol and formaldehyde, raising hopes of stabilisation. The volatility had previously forced manufacturers to increase prices of finished products, straining demand and intensifying negotiations between suppliers and buyers.

Industry stakeholders suggest that the ceasefire could help restore confidence across

global supply chains, particularly those impacted by disruptions in the Middle East. With shipping routes expected to normalise, the availability of raw materials is likely to improve in the coming weeks.

Experts note that if geopolitical stability holds, chemical prices may ease further within two to three weeks, allowing manufacturers to recalibrate production and pricing strategies. While the moderation remains gradual, it signals a potential turning point after weeks of uncertainty.

For an industry heavily reliant on imported chemical inputs, the development underscores the direct impact of global geopolitics on domestic manufacturing dynamics.

GOPAL KRISHAN
+91 93145 03949



DHARUV BANSAL
+91 76655 48555

SUN PLYWOOD INDUSTRIES



Manufacturers : Plywood - Block Board - Flush Door

D-42F-42G, Ricco Industrial Area, Kaladera, Jaipur (RAJASTHAN) INDIA

ADVANCED WOODWORKING SOLUTIONS

ENTIRELY MADE IN INDIA

OFFERING A WIDE RANGE OF PLYWOOD & FURNITURE MACHINES,
SPECIALIZING IN SANDING & CALIBRATION



Sunil Srivastava
MANAGING DIRECTOR



“ We don’t just build best machines – we build everlasting relationships. ”

WE ARE RESTRUCTURED WITH A FOCUS ON:

- Zero-maintenance technologies
- Low-cost operations
- Strong market acceptability
- A spirit of contributing towards a self-reliant nation

- > 5% Price Reduction Across All Our Products
- > Strong Commitment Towards Consistently Improved Sales
- > Ensuring Faster And More Reliable Deliveries
- > Increased Availability Of Spares With Every New Machine
- > Comprehensive Training Support
 - On-Site, Classroom & Shop Floor At Our Unit
- > Smart Software Upgrades For Enhanced Performance



CONTACT US AT:
+91-9811119274 +91-8222931409
+91-8222931402 +91-8222931411
● marketing@kumarengineeringco.in
● www.kumarengineeringco.in

FACTORY:
Khatri Industrial Area,
Sampla-Beri Road,
Sampla-124501,
Dist. Rohtak,
Haryana, India

CORPORATE OFFICE:
Office Number 412,
43 Chiranjiv Tower,
Nehru Place,
New Delhi - 110019,
India

BRANCHES:
Moradabad, Lucknow (U.P.)
Chandni Chowk (Delhi) | Yamuna Nagar (Haryana)
Perumbavoor (Kerala) | Ahmedabad (Gujarat)
Siliguri (West Bengal) | Hyderabad (Telangana)

SCAN
TO KNOW
MORE



FOLLOW US ON


Veneer Industry

Recommends 12% Price Hike Amid Cost Pressures

The All India Decorative Veneer Manufacturers Association has issued an advisory recommending a 12% price increase in decorative veneer products, following a high-level industry meeting held in Delhi on 6th April. The meeting brought together over 30 manufacturers from key production hubs, reflecting growing concern over mounting cost pressures.

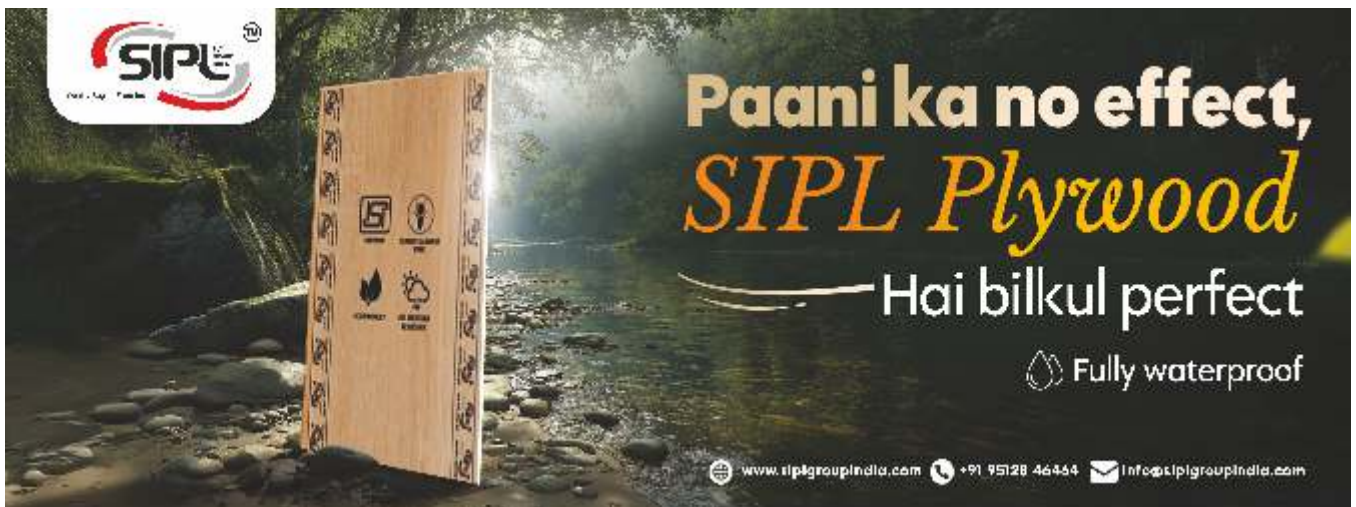
Chaired by Manish Kedia, alongside senior industry members, the discussion focused on challenges stemming from global supply chain disruptions, currency fluctuations, and rising operational expenses. Participants highlighted that the appreciation of the US dollar and increased input costs have significantly strained production economics across units.

The association noted that the

proposed price revision is a necessary corrective measure to offset escalating costs and ensure business sustainability. While the 12% increase has been suggested with immediate effect, implementation may vary depending on individual manufacturers' cost structures and market positioning.

Industry leaders emphasised that maintaining consistent product quality and operational viability remains a priority, particularly in the face of ongoing global uncertainties. The advisory also underscores the need for greater collaboration among stakeholders to navigate the evolving market landscape.

With input costs continuing to rise, the move signals a broader trend of price rationalisation across the wood and decorative surfaces sector.



SIPL
The Best Plywood

**Paani ka no effect,
SIPL Plywood
Hai bilkul perfect**

Fully waterproof

www.siplgroupindia.com +91 95128 46454 info@siplgroupindia.com

*Saath
Sada Ka*

UNITY PLYWOOD
THE UN-MATCHED PLYWOOD

PLYWOOD RANGE:

- UNITY PRO MARINE GRADE PLYWOOD • UNITY PRO MR GRADE PLYWOOD
- UNITY PRO FIRE RETARDANT PLYWOOD • UNITY PRO BLOCK BOARD
- UNITY PRO FLUSH DOOR • UNITY PRO SHUTTERING PLYWOOD
- UNITY PRO ANTICO VENEERS & UNITY TEAK PLY

POWERED WITH
BONDING BOOSTER
COMPOUNDS

MADE with
MAT PLY

8X4 PANEL

ZEROGAP

HARDWOOD
CONSTRUCTION

CALIBRATED

GLP
PROTECTED

GOLDEN PLYWOOD INDUSTRIES (P) LTD.

Tel.: 9814181117, 9814031387 Email: unityply@gmail.com Visit us at: www.unityply.com

Duty Waiver

Exemption on Key Chemicals Brings Relief to Panel Industry

The Government of India has announced a temporary exemption on import duties for key industrial chemicals, including methanol, phenol, ammonium nitrate and PVC inputs, effective 2nd April for a three-month period. The move is aimed at stabilising supply chains and easing cost pressures across multiple manufacturing sectors.

The decision comes as a major relief for wood panel, plywood, laminate and PVC-based industries, which have been grappling with sharp spikes in input costs in

recent weeks. Products such as WPC boards, doors, PVC edge bands and acrylic sheets are expected to benefit from improved cost dynamics.

Industry stakeholders have welcomed the step, noting that prices of essential chemicals like phenol, methanol and formaldehyde had nearly doubled, creating significant operational strain. The duty waiver is expected to provide short-term relief to manufacturers while also helping moderate prices for end consumers.

Makers Laminates

Launches 10×4 Signature Range for seamless, high-impact interiors

Makers Laminates has unveiled its new 10×4 laminate range, introducing 19 distinctive textures tailored for seamless, large-format applications across modern interiors. The collection is designed to minimise visible joints, ensuring enhanced visual continuity in statement walls, wardrobes, and expansive surface areas.

Among the highlights are Palisander Pine, which offers warm, natural grain

aesthetics, and Biarritz Walnut, known for its rich and luxurious tonal depth. Targeted at architects and interior designers, the range combines refined aesthetics with reliable performance.

With this launch, the company strengthens its premium portfolio while aligning with evolving design preferences and contemporary interior trends.



OWN EVERY SPACE WITH **ONEXIA**

Premium Decorative laminate for interiors that Inspires



Subtle wood grains
Bold abstract
elegant super matt
that transforms surface into luxurious Statement.

0.8mm

HOW



EMPOWERS DISTRIBUTORS

1. Curated Design For Optimal Stock Level

2. Regular Catalogue Update

3. Leading To Reduced Dead Stock And Better ROI

PARTNER WITH ONEXIA TODAY AND TRANSFORM YOUR LAMINATE BUSINESS

CALL : +91 90530 075118

A Quality Product From :



FOLLOW US ON :   

www.amritlam.in

Punjab Plywood Units

Cut Operations Amid Chemical Price Surge

The Punjab Plywood Manufacturers Association has called for a partial shutdown of plywood factories across the state, directing units to remain closed for three days each week. The decision follows an unprecedented rise in prices of key chemicals such as phenol and formaldehyde, which are critical to plywood manufacturing.

Association President Inder Jeet Singh Sohal stated that the move aims to safeguard industry stability while countering alleged cartelisation by importers and traders accused of artificially

inflating prices. By reducing consumption, the industry hopes to pressure suppliers into releasing stock and stabilising rates.

The directive, effective until further notice, calls for collective compliance from manufacturers to ensure its impact. Industry stakeholders view the measure as a strategic response to ongoing supply disruptions and volatile input costs, which have severely strained production economics.

Further updates are expected as the situation evolves.

Greenply

Marks Earth Day, Advancing Towards 100 Million Trees Milestone

Greenply reaffirmed its sustainability commitment this Earth Day, highlighting its contribution of planting over 87 million trees as part of its long-term environmental initiatives. The company has set an ambitious target to reach 100 million plantations by 2028, reflecting its continued focus on responsible sourcing and ecological balance. Through structured

plantation drives, agroforestry efforts, and partnerships with local communities, Greenply aims to expand green cover while supporting rural livelihoods. This initiative aligns with its broader sustainability goals, reinforcing its role as an environmentally conscious player in the wood panel industry.

*Divine
Beauty*

MINIMALISM AT ITS BEST
BRING MAGIC TO YOUR SPACE



Forever
The Designer Laminate



1.0mm | 0.8mm | Door Skin | Liner Grade

SHYAM LAMINATES



📍 Vill. Balachaur, Chandigarh - Paonta Sahib
Highway, NH73A, Jagadhri - 135 003,
Haryana (INDIA)

☎ +91 94162 79039, +91 94160 26185,
+91 72062 66828

✉ info@shyاملaminates.in

🌐 www.shyاملaminates.in

Century Plyboards

Delivers Solid Growth In Q3 Results

Century Plyboards India Limited posted a robust third-quarter performance, reporting a 9.4% rise in net profit to ₹64 crore, compared with ₹58.4 crore in the same period last year. Revenue recorded strong growth of 18.4%, reaching ₹1,350 crore, driven by steady demand across key product segments and improved market traction. The company's EBITDA surged

32% to ₹170.5 crore, supported by better operational efficiency and cost optimisation measures. As a result, EBITDA margins improved to 12.6%, reflecting disciplined execution, enhanced productivity, and the company's continued focus on strengthening profitability while sustaining growth momentum.

Action Tesa

Launches High-Performance HMR Particle Board

Action Tesa has introduced its HMR Particle Board, branded as "Moist Master," targeting applications requiring durability and moisture resistance. With a density exceeding 750 kg/m³, the board is engineered to withstand demanding conditions while offering strong screw-holding capacity.

The product features high resistance to moisture, borers, and termites, along with low formaldehyde emissions, aligning with

environmentally responsible standards. Backed by a 12-year warranty, Moist Master is positioned as a cost-effective yet high-performance solution.

Designed for diverse applications, it caters to kitchen shutters, furniture across residential and institutional spaces, wall paneling, wardrobes, fixtures, and display units, reinforcing its versatility in modern interiors.

PLY GAZETTE

MONTHLY REPORT ON THE INDIAN PANEL AND SURFACE INDUSTRY



TERMITE & BORER FREE

★ CALIBRATED RANGE ★

★ BWP GRADE ★ MR GRADE ★



★ PLYWOOD

★ FLUSH DOOR

★ BLOCK BOARD

★ SHUTTERING PLY



JAI MATA PLYWOOD

Vill Khakli, P.O. Baghpur, Near Bua Bai Mandir, Dasuya Road, Hoshiarpur – 146001 (PB.)

Helpline No. : +91 96 97 982 983

E-mail : jaimataplywood@yahoo.in | Website : www.jaimataplywood.com

Greenply

Bets on Compliance, Premiumisation to Drive Next Growth Cycle

Greenply Industries Ltd is recalibrating its growth strategy around compliance, capacity expansion, and premiumisation as India's wood panel industry transitions toward a more organised and regulation-driven structure. In an interaction, Manoj Tulsian outlined how evolving demand patterns and policy shifts are reshaping the company's priorities.

A key driver has been improved capacity utilisation, particularly in the medium-density fibreboard (MDF) segment. The company has expanded its Vadodara facility's capacity by 25% to 1,000 cubic metres per day within the existing footprint. Utilisation stood at around 71% until the third quarter of FY26, with full capacity expected to be achieved in the coming year. Efficiency gains have been supported by cost optimisation measures, including the use of agricultural eco-waste as fuel, structured power agreements, and streamlined logistics through long-term contracts. Simultaneously, the product mix is shifting toward value-added MDF offerings and the

mass-premium Ecotec brand.

Demand recovery, however, remains uneven. Growth is largely concentrated in Tier 1 and Tier 2 cities, driven by organised housing, commercial real estate, and institutional interior projects. The increasing adoption of factory-made modular furniture and standardised fit-outs signals a structural shift in consumption patterns.

A pivotal inflection point is the implementation of mandatory BIS certification from February 2026, expected to formalise a ₹30,000-40,000 crore plywood market. This regulatory push is likely to favour organised, compliant players, strengthening Greenply's competitive positioning.

Looking ahead, MDF expansion remains central. The company is planning a ₹500-600 crore plant by FY28, alongside a ₹600 crore integrated facility in Odisha. With disciplined capital allocation and a focus on compliance-led segments, Greenply aims to sustain profitable, long-term growth.

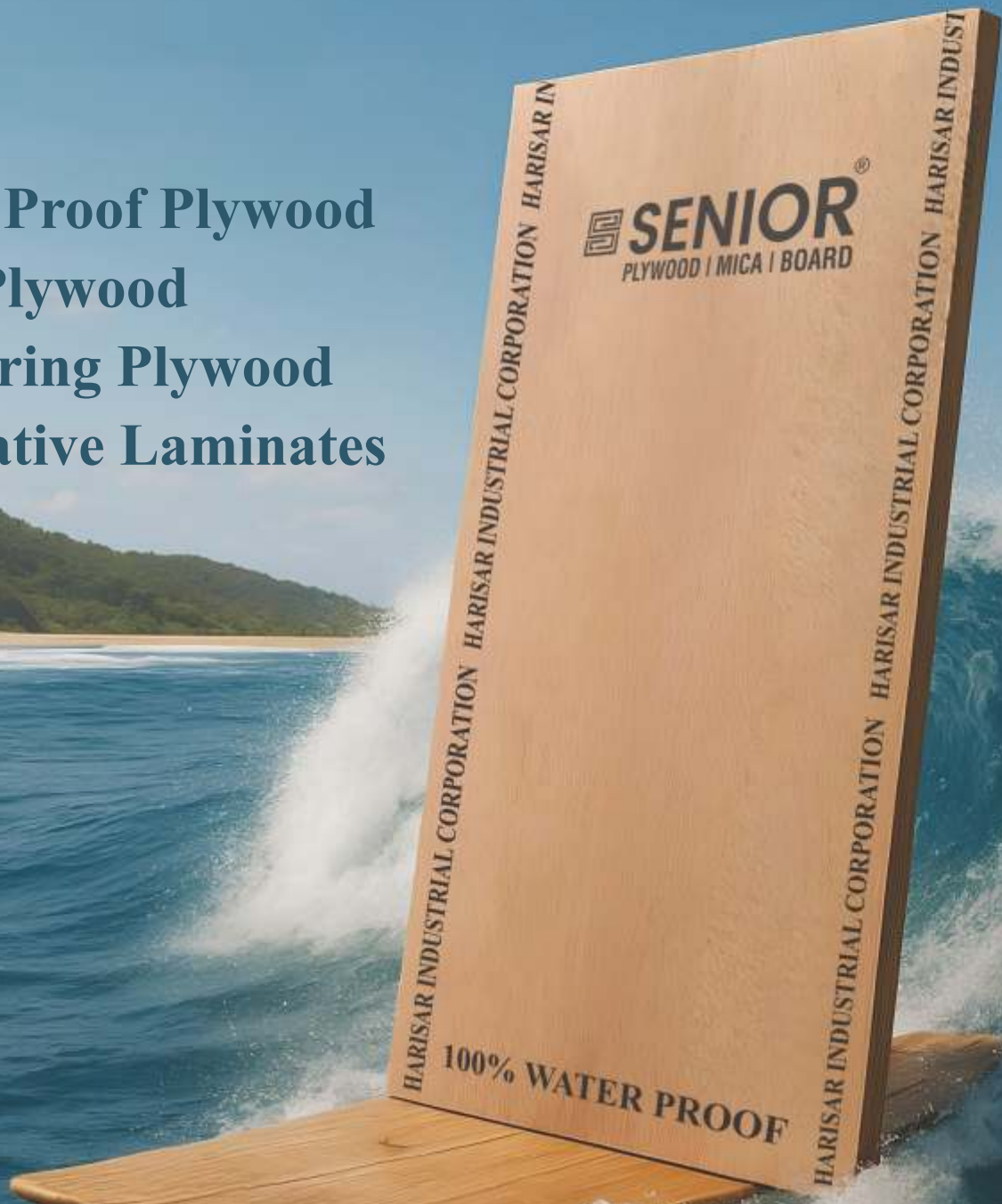
PLY GAZETTE

MONTHLY REPORT ON THE INDIAN PANEL AND SURFACE INDUSTRY

 **SENIOR**[®]
PLYWOOD | MICA | BOARD

100% WATER PROOF

**Water Proof Plywood
Matt Plywood
Shuttering Plywood
Decorative Laminates**



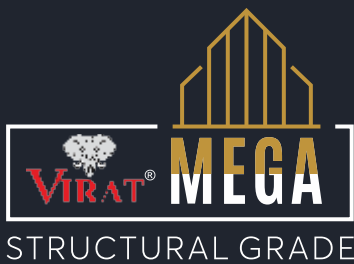
HARISAR INDUSTRIAL CORPORATION

C-153, 154, 155, Focal Point, Phase-V, Ludhiana, Punjab - 141 010
Gurpreet Singh Sohal : +91 9876105155 | E-mail : seniormica@gmail.com



VIRAT[®]

Mazbooti ki Pehchaan



**MARINE GRADE, STRUCTURAL GRADE & FIRE RETARDANT PLYWOOD,
IS:10701, IS:5509 and IS:710 standards.**

📍 Mullapur Road, Village Hambran, Ludhiana ☎ +91 6262 050 551, Email:info@Viratply.com

VIMBA PLY[®]

Calibrated Ply | Calibrated Boards | Shuttering Ply | Doors

DESIGNED TO PERFORM.
BUILT TO PERFECTION.

FINISH JO NAZAR THAM LE

Every sheet of Vimba Plywood is crafted with precision and passion to deliver unmatched strength, flawless finish and long lasting performance.

SINCE 1952
SERVING THE INDUSTRY WITH INNOVATIVE
TECHNOLOGY AND ARE STILL EVOLVING

JET VENTILATED ROLLER TRACK VENEER DRYER 24 SECTION 4 DECK (WITH ALTERNATE HEATING ZONE)



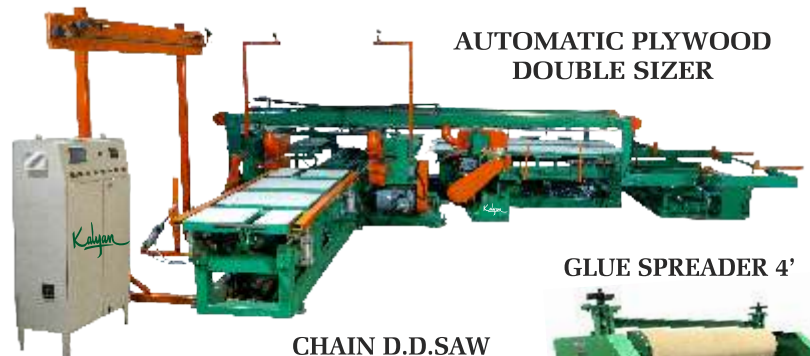
ROTARY PEELING LATHE 56"



108" SPINDLELESS ROTARY PEELING



SPINDLELESS ROTARY PEELING



AUTOMATIC PLYWOOD
DOUBLE SIZER

CHAIN D.D.SAW



HEAVY DUTY
DEBARKING MACHINE
WITH CHIPPER



GLUE SPREADER 4'



GUILLOTINE JOINTER





- PLYWOOD
- BLOCK BOARD
- SHUTTERING PLYWOOD
- FLUSH DOOR



CHOOSE CONFIDENCE.
CHOOSE APOLLO.



- ALL SEASON PROOF
- UNIFORM STRENGTH
- STRUCTURALLY BALANCED
- CHEMICALLY TREATED
- ECO-FRIENDLY TIMBER

AN ISO 9001:2008 CERTIFIED COMPANY

METRO PLYWOOD PVT. LTD.

Works : V.P.O. Damla, Delhi Road, YAMUNA NAGAR - 135 001 (HR.)

M. : +91 9992778000 | Email : pawitrajain@gmail.com



ROYAL DECORS

Surface Decor Ideas

**Elevate Interiors with
Premium Decor Papers for Surfaces**



**DECOR PAPERS FOR LAMINATE
AND PRELAM INDUSTRIES**



For Any Queries Contact :
+91 92108 22222



ASHUTOSH
INDUSTRIES

**Largest Manufacturer of
Decorative Teak Face Veneer in India**

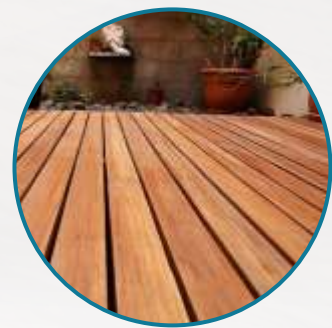
Manufacturer of:

DECORATIVE TEAK FACE VENEER
0.2 MM TO 0.5 MM
(As per customer requirement)

Other Species:

- ★ Teak Wood Lumber
(Sawn Sizes)
- ★ Solid Wood Panel Door
- ★ Wooden Furniture

- ★ Red Oak
- ★ American Walnut
- ★ White Ash, etc.



ASHUTOSH INDUSTRIES

Gumthala, Bhandara Road, Nagpur | M. : +91 9422113392
E-mail : ashutoshveneer@gmail.com | Website : ashutoshindustries.in

Greenply

Posts Strong Q4 with 86% Profit Surge; MDF Expansion Drives Momentum

Leading plywood and laminates manufacturer Greenply Industries Ltd reported a sharp 86.4% year-on-year jump in its net profit for the fourth quarter of FY26, underscoring a strong finish to the financial year driven by operational efficiency and segmental growth.

The company posted a net profit of ₹30.7 crore for the March quarter, compared with ₹16.5 crore in the corresponding period last year. The figure includes an exceptional one-time gain of ₹15.2 crore. For the full financial year FY26, net profit stood at ₹89.8 crore, also influenced by a one-time item of ₹14.6 crore.

Greenply recorded its highest-ever consolidated quarterly revenue during the period, with revenue rising 19.6% to ₹776.2

crore, up from ₹648.8 crore a year earlier. For the full year, consolidated revenue grew 10.1% to ₹2,739 crore, reflecting steady demand across product categories and geographies.

Operational performance remained robust, with EBITDA for the fourth quarter increasing 37% to ₹93.2 crore, compared to ₹68.1 crore, a year ago. The EBITDA margin improved to 12% from 11% last year, indicating better cost efficiencies and product mix. For FY26, core EBITDA stood at ₹270.5 crore, marking a 13.8% increase, with margins at 9.9%.

The company's plywood segment continued to be a key contributor, with Q4 revenue rising 14.6% year-on-year to ₹588.5 crore. Volume growth in the segment stood at 15.6%, pointing to strong underlying demand.

ESTD
1994

SAI PLYWOODS

VIJAY AGARWAL
+91 99598 83300

A unit of Sri Divyasai Plywood (P) Ltd.

SURAKSHA CLUB

PLYWOOD | MDF | WPC

Wholesalers & Importers of :- PLYWOOD | MDF | LAMINATES ETC.

5-5-1045, Opp. Bhavani Wines, Near Darusalam Cross Road, Goshamahal, Hyderabad-012. T.S.



Sauerland
Spanplatte

78 Reasons to use Sauerland Boards



Looking for the better door ?

1 Doors with ideal weight



About 50% weight reduction

2 Doors resisting daily stress



No damage under workload

3 Doors production with high efficiency



Low operating costs

4 Doors that close properly



No bending

5 Doors with a perfect surface



Thickness precision
+/- 0.1mm

6 Doors reducing sound transmission



Less noise pollution

7 Doors protection from fire



Fire protection



8 Swelling in thickness less than 5%

← →

✓ Sauerland Guarantee



WE OFFER :

Support in Door Construction
... following your specific requirement.

Testing in the Sauerland Lab
... regarding all technical demands.

Sauerland Door Concept



Sauerland Service

Please compare your actual door construction with the option to apply the **Sauerland Door Concept**.

You will improve quality and performance.
Please do not hesitate to contact us.

Door manufacturers interested in new technology Contact :

Sleek Boards Marketing Services LLP

20, "Landmark" 4th Floor, Paud Road,
Kothrud, Pune 411038. INDIA

TEL: +91 7447446760

sleekboardsmarketingservices@gmail.com

www.sauerland-spanplatte.de

Core EBITDA for plywood came in at ₹61.2 crore, with margins improving to 10.4% from 8.4% in the previous quarter. Segmental net profit stood at ₹24.3 crore, aided by the exceptional item. For the full year, plywood revenue grew 7.5% to ₹2,105.7 crore.

Meanwhile, the medium-density fibreboard (MDF) segment emerged as a standout performer during the quarter. Q4 revenue from MDF surged 39.6% to ₹189.4 crore, driven by a sharp 45.3% increase in volumes. Core EBITDA in this segment stood at ₹32.1 crore, with margins improving significantly to 17%, compared to 10.1% in the preceding quarter. For FY26, MDF revenue rose 19.9% to ₹635.6 crore, indicating the success of recent capacity expansions.

Commenting on the performance, Sanidhya Mittal, Joint Managing Director of Greenply Industries, said the company had successfully delivered on its second-half guidance, achieving double-digit growth in both volume and value terms across business segments.

She noted that the fourth quarter marked the first full quarter of operations following the MDF capacity expansion, which contributed significantly to the sharp revenue

growth and margin improvement. With operations stabilised, the company expects to sustain MDF margins of over 16% in the coming financial year.

On shareholder returns, the company's board has recommended a final dividend of ₹0.50 per equity share of face value ₹1 each for FY26. The dividend is subject to shareholder approval at the upcoming annual general meeting scheduled for 25th August, 2026, and is expected to be paid within 15 days thereafter.

Reflecting investor confidence, shares of Greenply Industries closed at ₹257.35 on the BSE on 28th April, up ₹9.85 or 3.98% from the previous close.

Robust volume growth and improved margins power record quarterly revenue as company signals sustained performance ahead.

With strong execution across segments, improving margins, and momentum from its MDF expansion, Greenply appears well-positioned to carry forward its growth trajectory into FY27, even as it navigates competitive and cost pressures in the building materials sector.

FORGET SCREENS - NOW USE ROLLERS

INTRODUCING

SPECIAL MARKING ROLLERS & INKS

“IMPRESSION JUST LIKE SCREEN PRINTING”

SHAMMY FLEXOGRAPHICS

Ph. 9818820698, 9810155930

NOIDA - A-4, Sector - 20, Noida, Distt. G.B. Nagar - 201301

MUMBAI - 101, 102, 103 New Laxmi Shopping Centre,
Ghatkopar(W), Mumbai - 400086

Email - shammyflexo@rediffmail.com | rajiv820698@gmail.com

IS : 4990



CM/L 9687212

SINCE 1995



WOODSTOCK

MIRROR FINISH SHUTTERING PLYWOOD



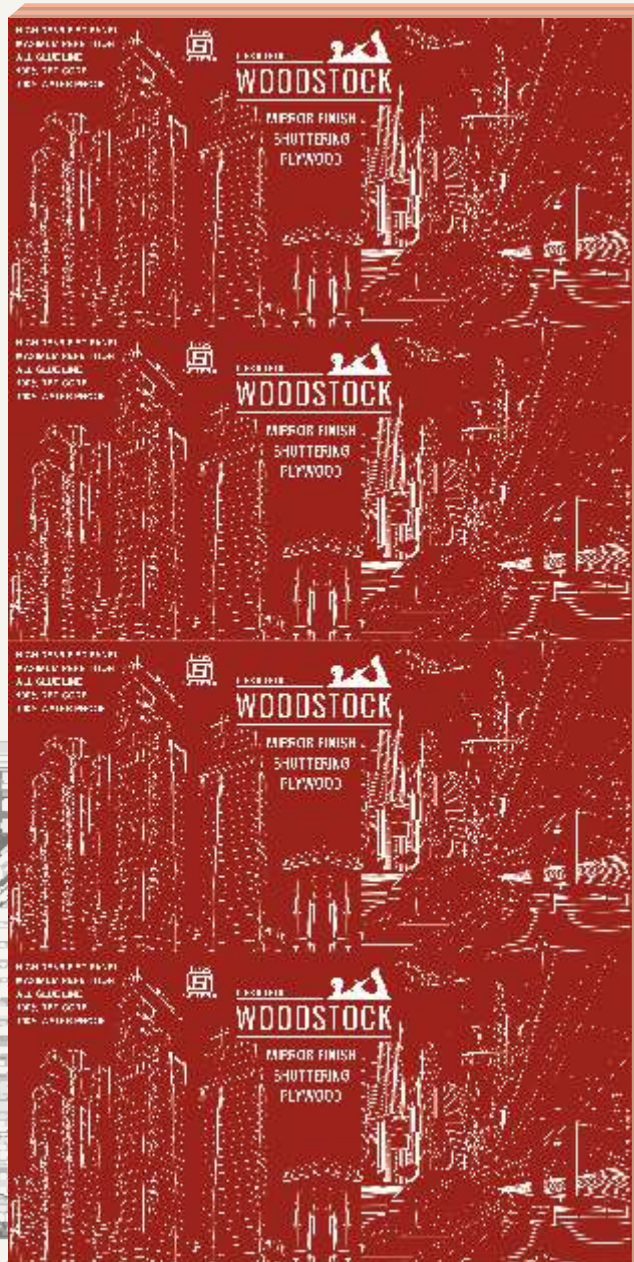
MIRROR FINISH



100% WATER PROOF



MAXIMUM REPETITION



HARYANA WOOD PRODUCTS

Works : Village Mukarabpur,
Chhachhrauli Road, Jagadhri - 135 001
Distt. Yamuna Nagar (Haryana)

Email : haryanawood@woodstock.co.in
Web : www.woodstock.co.in

Scan here for more information



Contact :
99928-99963



Punjab

Eyes Agro-Forestry Boost for Wood Industry Growth

At the Progressive Punjab Investor Summit 2026, policymakers and industry leaders underscored agro-forestry as a critical lever to strengthen Punjab's wood panel and furniture sectors. The discussions highlighted the urgent need for a sustainable raw material base amid rising demand.

Priyank Bharti, Secretary for Forests and Wildlife Preservation, Science & Technology, emphasised that agro-forestry has emerged as a reliable and eco-friendly source of timber. He noted that promoting timber-based plantations could simultaneously support industrial growth and environmental conservation.

In a significant policy signal, Bharti indicated that agro-forestry plantations may be exempted from the proposed Tree Protection Bill, currently under government consideration. The move is expected to incentivise farmers to adopt commercial timber cultivation, thereby strengthening

supply chains for the plywood and furniture industries.

The panel featured industry stakeholders including Naresh Tiwari, Sunil Shekhawat, Mukesh Goyal, and Inderjit Singh Sohal. Discussions centred on challenges such as rural labour safety, sustainable sourcing, and the adoption of eco-friendly manufacturing practices.

Experts advocated the plantation of fast-growing species like eucalyptus and poplar on underutilised land, citing their suitability for plywood production and recyclability. They also highlighted the dual benefit of agro-forestry, enhancing farmer incomes while ensuring a steady supply of raw materials.

With policy support and industry alignment, Punjab is positioning itself to build a resilient, sustainable ecosystem for its expanding wood-based industries.

PLY GAZETTE

MONTHLY REPORT ON THE INDIAN PANEL AND SURFACE INDUSTRY

WWW.PLYGAZETTE.COM



WOOD PRODUCTS

Commercial & MR Grade

Block Board

Flush Door

Plywood



CASPER

CARNET



R.D. Wood Products

Sister Concern

Pacific Panels

Vill. Jorian, Behind Chanderpur Works, Yamuna Nagar – 135001 (Haryana)
M. : +91 98120-35102 / +91 93553-55102 | Email : pacificpanels2016@gmail.com

FIPPI

Urges Chhattisgarh to Operationalise Centre's Revised Forest Norms

The Federation of Indian Plywood and Panel Industry (FIPPI) has approached the Principal Chief Conservator of Forests (PCCF), Chhattisgarh, seeking support for the implementation of the Centre's revised forest policy that enables private participation in plantation activities on degraded forest land. The Industry body is pitching public-private plantation models to boost timber supply and restore degraded forest land.

The representation follows the Government of India's January 2026 amendment to guidelines issued by the Ministry of Environment, Forest and Climate Change, which modified provisions under paragraph 7.2 of the consolidated framework notified on 29th November, 2023. The amendment allows state governments to collaborate with private entities for undertaking plantations and assisted natural regeneration on degraded forest land under a regulated structure.

The policy aims to strengthen scientific forest management practices, improve ecological outcomes through restoration of degraded landscapes, and enhance the availability of raw material for wood-based industries such as plywood and panels.

Under the revised guidelines,

plantation activities carried out in partnership with private players will continue to be treated as forestry operations and remain under the supervision of State Forest Departments. Projects are required to adhere to approved Working Plans and be supported by Detailed Project Reports (DPRs), which will define parameters such as land area, species selection, silvicultural practices, and harvesting cycles.

A key provision in the amendment clarifies that such activities, when classified as forestry operations, will not attract compensatory afforestation requirements or the payment of Net Present Value (NPV), a move expected to improve project viability and encourage industry participation.

In its communication to the Chhattisgarh forest authorities, FIPPI emphasised that timely adoption of the revised framework could help address the persistent gap between domestic timber demand and supply. The federation noted that India's wood-based industry continues to rely significantly on imports, and enabling structured plantation activity within the country could reduce this dependency while supporting rural economies.

To facilitate implementation, FIPPI has proposed two broad models for

consideration by the state.

The first, a revenue-sharing model, envisages State Forest Development Corporations acting as nodal implementing agencies. Under this framework, the corporation would partner with private entities to prepare DPRs and execute plantation projects. Investment responsibilities could be shared, with output distributed proportionately. The corporation would manage the sale of its share, while an indicative minimum price mechanism may be considered for private participants. The model also allows for potential financing support from institutions such as National Bank for Agriculture and Rural Development.

The second, termed the industry participation model, proposes direct involvement of private players in plantation development. Degraded forest areas, particularly open or non-dense forests, would be identified by the Forest Department, following which DPRs would be prepared in consultation with participating industries. Species selection could include commercially

viable and fast-growing varieties such as *Melia dubia*, *Acacia mangium*, and *Eucalyptus*, in line with approved Working Plans.

The projects would incorporate elements of assisted natural regeneration, soil and moisture conservation, fire protection, and sustainable harvesting practices, ensuring ecological safeguards alongside commercial objectives. Implementation would remain under the oversight of the Forest Department.

Industry stakeholders have broadly welcomed the Centre's policy shift, viewing it as a pragmatic step toward balancing environmental restoration with industrial requirements. If executed effectively, the framework could create a structured pathway for augmenting timber resources while rehabilitating degraded forest landscapes.

FIPPI has urged the Chhattisgarh government to take an early lead in adopting the policy, positioning the state as a model for integrating industry participation with sustainable forestry practices.

Vowel[®]

KARTIK ARORA
+91 93195 78001

BRIGHT PAPER PRODUCTS

Manufacturers of :

All types of BOPP Tapes & Customised Printed Tapes

Add : Mundka Industrial Area, Delhi

✉ brightpaperproducts9@gmail.com 🌐 Website : www.vowelstationery.com

HD+MR Particle Board

High-Density Innovation Pushes Particle Boards into Retail Spotlight

India's wood panel industry is witnessing a notable shift as high-density, moisture-resistant particle boards (HD+MR PB) gain traction in the retail market, challenging long-held perceptions of the product as a low-margin, utility-grade option.

Traditionally confined to office furniture and budget modular segments, particle boards have struggled to secure wider acceptance among retailers and end consumers. Despite an installed capacity exceeding 20,000 CBM across India, their application remained limited, largely due to concerns over durability, performance and profitability.

However, recent advancements in



manufacturing technology and product engineering are beginning to alter this

+91 80877 16999

MALPANI WOOD IND. (P) LTD.

NEELKAMAL[®]

Manufacturer's of :

Decorative Teak Plywood | Calibrated Plywood | BWR | MR PLYWOOD

A-8/3 MIDC., Kalmeshwar, Dist. - Nagpur (Maharashtra)

narrative. The introduction of high-density particle boards, featuring densities above 750 kg/m³ and enhanced moisture resistance, has triggered renewed interest across the value chain. These upgraded boards offer improved strength, better screw-holding capacity and increased longevity, making them suitable for a broader range of applications, including shutters, beds and interior furniture.

The year 2025 marked a turning point for the segment, with more than a dozen manufacturers launching high-density variants. Leading branded players such as Merino, Greenlam Industries, Century Plyboards India Limited and Action Tesa have significantly expanded their focus on this category, investing in innovation and product differentiation.

Retail acceptance is now visibly improving, driven in part by increasing adoption among carpenters and fabricators who are recognising the product's enhanced performance characteristics. The shift is also supported by evolving consumer preferences for cost-effective yet durable interior solutions, particularly in mid-segment

housing and commercial spaces.

Industry experts suggest that HD+MR particle boards could emerge as a disruptive force in the furniture segment, offering a viable alternative to traditional materials. Their competitive pricing, combined with improved quality standards, positions them as an attractive proposition for both manufacturers and retailers.

The broader industry context further underscores this transition. As global supply chain disruptions and rising input costs, exacerbated by geopolitical tensions, continue to impact the wood panel sector, manufacturers are increasingly focusing on value-engineered solutions that balance cost and performance.

With sustained innovation and growing market confidence, high-density particle boards are poised to redefine their role in India's furniture ecosystem. What was once viewed as a secondary product category is now steadily moving towards mainstream acceptance, signalling a new phase of growth for the segment.

Suraj Wood Industries

Plot No. D-44F&G, Industrial Area, Kaladera, Jaipur (RAJ).
Mobile - +91 99825 24668

ANKUSH LAMBORIA
+91 97999 93698

SWI
Impressions For Your Surroundings.

SunRock
Be a smart decision maker

Manufacturers :
Plywood - Block Board - Flush Door
Marine Ply

India–New Zealand FTA

Promises Cheaper Imports, Deeper Economic Ties

In a significant development against the backdrop of global economic uncertainty, Piyush Goyal, Union Minister of Commerce and Industry, Govt. of India and Todd McLay, Minister for Trade and Investment, Govt. of New Zealand, formalised a historic Free Trade Agreement (FTA) between India and New Zealand, a deal negotiated and concluded within a notably swift nine-month period. The agreement is being positioned as a strategic milestone, reflecting both nations' intent to deepen economic cooperation while insulating growth trajectories from global volatility.

The FTA aims to expand bilateral trade to \$5 billion over the next five years, while unlocking an estimated \$20 billion in investments over a 15-year horizon. Beyond numerical targets, policymakers view the agreement as a structural pivot that elevates trade into a broader framework of long-term partnership between two democratic economies.

A key feature of the pact is the reciprocal easing of tariffs. New Zealand will provide Indian goods with near-complete duty-free access, eliminating tariffs that

previously reached up to 10% across several categories. In return, India has committed to reducing tariffs on approximately 95% of imports from New Zealand, marking one of the more comprehensive liberalisation efforts in recent trade policy.

This tariff rationalisation is expected to yield tangible benefits across sectors. Indian exporters, particularly in textiles, leather goods, carpets, and automotive components, stand to gain enhanced market access. Simultaneously, Indian consumers are likely to see price corrections in several imported categories.

Premium agricultural produce such as kiwis, apples, cherries, and avocados is expected to become more affordable. Marine products including salmon and mussels may also see reduced retail prices, alongside wool and timber inputs that could lower costs in the textile and furniture industries. High-value niche items such as Manuka honey and specialised baby food products are also expected to enter the market at more competitive price points.

Importantly, the agreement incorporates calibrated safeguards. Sensitive

The FTA aims to expand bilateral trade to \$5 billion over the next five years, while unlocking an estimated \$20 billion in investments over a 15-year horizon

sectors within India, including dairy, sugar, spices, and edible oils, have been excluded from tariff concessions, reflecting a deliberate policy choice to protect domestic farmers and agricultural stability.

The FTA extends beyond trade in goods, opening new pathways in employment and education. Under the agreement, up to 5,000 Indian professionals annually will be eligible for work opportunities in New Zealand across sectors such as information technology, engineering, and traditional wellness disciplines including AYUSH and yoga. These roles will be supported by three-year work visas. Additionally, a Working Holiday Visa scheme will allow 1,000 young Indians each year to live and work in New Zealand for up to 12 months, facilitating

cross-cultural exposure and skill development.

From a strategic standpoint, the agreement enhances India's integration into global supply chains while positioning New Zealand as a gateway for high-quality agricultural and natural resource exports into one of the world's largest consumer markets. For investors, the pact signals regulatory predictability and long-term alignment between the two economies.

As trade agreements increasingly define geopolitical influence, this FTA stands out not merely as an economic instrument, but as a forward-looking blueprint, which aligns commerce, mobility, and investment into a cohesive framework for sustained bilateral growth.

Channel Partner





Anirudh Singal
9896345849
Bhupender
99963 69334

OUR PRODUCTS

<p>Pine Wood</p>  <p>New Zealand Pine Uruguay Pine SYP (Southern Yellow Pine)</p>	<p>Core Veneer</p>  <p>Eucalyptus Core Veneer Rubber Core Veneer Keuring / Gurjan Core Veneer</p>
<p>Logs</p>  <p>Pine Logs Eucalyptus Logs SYP Logs</p>	<p>MDF Board</p>  <p><u>IMPORTED</u> 100% Rubber Wood Thickness : 1.7 mm to 25 mm Door Size : 2.7 mm (Green Colour)</p>

Factory Add. : Gandhidham, Kutchchh, Gujarat - 370240
Head Office Add. : Hisar, Haryana - 125044
E-mail : buzz.anirudh@gmail.com | Website - www.hpisalescorporation.com

Rushil Décor

Charts ₹1,000-Crore Path as Exports, Value Addition Drive Growth

In a detailed and wide-ranging interaction on a leading business tv channel, Rushil Thakkar, Managing Director of Rushil Décor Ltd, laid out an ambitious yet calibrated roadmap for the company's next phase of growth. Centre-ing around a clearly measured target: achieving revenues of approximately ₹1,000 crore by FY27, a milestone that comes after a period of relatively moderated expansion influenced by industry headwinds.

The past three to four years, Thakkar acknowledged, have not been without challenges.

Growth in the wood panel and laminates sector has mirrored broader trends in real estate and infrastructure, steady, but not explosive. At the same time, inflationary pressures, particularly in raw materials, have exerted sustained pressure on margins. Yet, despite these constraints, the company's leadership remains confident of a strong upcycle ahead.

Thakkar attributed this confidence to a combination of operational readiness and strategic market expansion. A key enabler is



the company's "jumbo" laminate facility, which is now fully operational after completing its research and development phase. This facility is expected to significantly enhance production capabilities while improving product mix and margins.

Equally critical is the company's renewed export thrust. While traditional markets in the Far East and the Gulf have historically driven volumes, the company is now actively expanding into Europe, North America, and Latin America. This

diversification is not merely geographic, it is also strategic, aimed at reducing dependency on specific regions while tapping into higher-value markets.

In the medium-density fibreboard (MDF) segment, the focus is shifting decisively towards value-added products. The company aims to derive nearly 50% of its MDF capacity from value-added offerings, a move expected to bolster both topline growth and profitability. “We are very clear and focused with our vision,” Thakkar noted, underscoring a disciplined approach to scaling operations.

Margins, however, remain a central concern in the current macroeconomic environment. The company has guided for margins in the range of 8–9% in FY26, with expectations of improvement to 10-11% in FY27. Thakkar expressed cautious optimism that these targets remain achievable, despite ongoing volatility in input costs.

To mitigate rising costs, the company has implemented calibrated price hikes. In the MDF segment, prices were increased by approximately 15% in April through two successive revisions. In high-pressure laminates (HPL), premium products saw price hikes of around 18%. These measures, according to Thakkar, have helped stabilise margins, even as chemical prices, largely sourced from the Gulf, have risen sharply.

The impact of geopolitical tensions, particularly in West Asia, has been tangible. The region not only serves as a key export market but is also a major source of raw

materials. Disruptions here have translated into both cost pressures and demand fluctuations. However, the company’s diversified export base, spanning over 60 countries in laminates, has provided a degree of insulation.

Exports currently account for approximately 25% of the company’s overall turnover, with laminates contributing a significant share, around 65% of laminate revenues come from international markets. In MDF, exports are more modest at roughly 20%, reflecting the segment’s stronger domestic orientation.

Looking ahead, the company aims to increase its overall export contribution to 30%. This shift is expected to not only enhance revenue visibility but also improve margins, given the higher realisations typically associated with export markets.

Domestically, MDF continues to be the backbone of the business, driven by demand from furniture, interior design, and construction sectors. The company’s dual focus, strengthening domestic leadership while expanding global reach, forms a balanced growth strategy.

On the financial front, the company is maintaining a conservative stance. Long-term debt, which stood at approximately ₹139 crore as of FY25, is being systematically reduced through annual repayments of around ₹50 crore. Thakkar indicated that, at this pace, the company expects to achieve a near debt-free status within the next two years.

Cash management remains prudent, with the company operating comfortably with a cash balance in the range of ₹5-10 crore. Importantly, there are no immediate plans for fundraising, either through equity or private placements. This reflects both confidence in internal accruals and a cautious approach to capital structure.

One area that has seen volatility is return on capital employed (ROCE), which has declined from peak levels seen in FY23. Thakkar attributed this to a combination of factors, including increased domestic competition following capacity expansions across the industry.

FY23, he noted, was an exceptional year, driven by newly commissioned capacities operating at optimal levels. Subsequent years have seen more competitive intensity, impacting returns. While specific targets for ROCE improvement were not disclosed, the management emphasised its commitment to maintaining current levels and pursuing gradual enhancement through efficiency gains.

Operationally, the company is running at high utilisation levels across segments. In laminates, legacy facilities are operating at 85-90% utilisation, while the new jumbo facility is currently at around 25%, with a target of exceeding 55% in FY27. This ramp-up is expected to be a key driver of incremental revenue.

In the MDF segment, blended utilisation across facilities in Visakhapatnam and Chikmagalur stands at an impressive

87-90%. Notably, the Chikmagalur unit has, at times, exceeded 100% utilisation, reflecting strong demand and operational flexibility.

These utilisation levels suggest that, in the near term, growth will be driven more by optimisation and product mix improvements rather than large-scale capacity additions.

The broader industry context remains complex. Rising input costs, geopolitical uncertainties, and intensifying competition present ongoing challenges. Yet, the company's strategy, anchored in diversification, value addition, and financial discipline, positions it to navigate these headwinds.

Thakkar's articulation of the company's roadmap reflects a balance between ambition and pragmatism. The ₹1,000-crore target is not framed as a leap of faith, but as the outcome of specific, measurable drivers: expanded export markets, higher value-added production, improved capacity utilisation, and disciplined cost management.

As the wood panel and laminates industry evolves, companies that can integrate operational efficiency with strategic foresight are likely to emerge stronger. For Rushil Décor, the coming year will be a critical test of this integrated approach.

If the company delivers on its stated objectives, FY27 could mark not just a numerical milestone, but a structural shift, that redefines its position in both domestic and global markets.

Greenpanel Industries Limited

Shobhan Mittal Honoured as CEO of the Year 2026



Shobhan Mittal, Managing Director and CEO of Greenpanel Industries Limited, has been awarded the “CEO of the Year” title at the Business Leader of the Year Awards 2026, recognising his strategic leadership and industry impact.

Under Mittal’s leadership, Greenpanel has

consolidated its position as India’s largest wood panel manufacturer and the country’s leading MDF producer. The company has expanded production capacities, strengthened its product portfolio, and advanced its presence across domestic and international markets. Its offerings span MDF, HDF pre-laminated

boards, plywood, and wooden flooring, reflecting a shift towards integrated wood panel solutions.

The award highlights not only Mittal’s leadership but also Greenpanel’s sustained growth driven by innovation, operational efficiency, and a commitment to responsible manufacturing. Industry observers note that the company’s consistent focus on quality and long-term strategy has played a key role in its market leadership.

Responding to the recognition, Mittal credited the achievement to the collective efforts of the Greenpanel team, partners, and customers, reaffirming the company’s commitment to raising industry benchmarks and driving future growth.

Crossbond

Signs Ranveer Singh to Power Brand Growth

Crossbond has announced Ranveer Singh as its official brand ambassador, marking a strategic move to strengthen its presence across India's competitive panel and décor market. The association is aimed at amplifying brand visibility and aligning Crossbond's identity with Singh's high-energy persona and contemporary appeal.

A flagship brand of Metro Decorative Group, Crossbond brings over three decades of expertise in engineered wood panels and surface solutions. Its portfolio spans MDF, HDMR, particle boards, laminates, decorative panels, wooden flooring, and ACP claddings, catering to furniture, interiors, and

architectural applications nationwide.

Managing Director Ram Agarwal described the partnership as a milestone, noting its alignment with the company's forward-looking vision. Singh echoed the sentiment, highlighting the brand's focus on strength, reliability, and modern design.

With a network of over 2,500 dealers and more than 50,000 projects executed, Crossbond is leveraging this collaboration to deepen engagement with both trade professionals and end consumers, reinforcing its leadership in the evolving wood panel industry.

Vowel[®]

KARTIK ARORA
+91 93195 78001

BRIGHT PAPER PRODUCTS

Manufacturers of :

All types of BOPP Tapes & Customised Printed Tapes

Add : Mundka Industrial Area, Delhi

✉ brightpaperproducts9@gmail.com 🌐 Website : www.vowelstationery.com

Virgo Laminates Limited

Launches CROMA+ Catalogue for Modern Interiors, with expanded design range

Virgo Laminates has introduced the CROMA+ Catalogue, expanding its portfolio with a wider and more refined range of surface designs tailored for diverse interior spaces. The collection reflects evolving design preferences, combining contemporary aesthetics with durability and functional performance. With an emphasis on versatility, the catalogue caters to residential, commercial, and retail



applications, offering solutions that align with modern architectural trends. By blending style, strength, and sophistication, CROMA+ aims to inspire architects, interior designers, and specifiers seeking innovative and reliable surfacing options, reinforcing Virgo Laminates' commitment to design excellence and product innovation in the competitive laminates market.



Dorby

Expands Retail Footprint in Punjab, with new experience centre in Ludhiana

Dorby opened its new Experience Centre in Ludhiana on 19th April, 2026, marking a strategic step in expanding its footprint in North India. The facility is designed to offer customers an immersive and hands-on view of its diverse product range, enabling better understanding of design, finish, and application. By creating a dedicated interaction space, Dorby aims to strengthen its regional presence while enhancing direct engagement with



architects, interior designers, dealers, and end consumers. The centre reflects the brand's focus on experience-led marketing and its commitment to building closer connections with the professional community and evolving customer needs.

Matmax [®]
PLYWOOD & BLOCKBOARD

Feel The Quality

100% PURE WOOD | 100% TRIPLE WOOD CORE | 100% DURABLE CORE

ADVENT PLYBOARD PVT. LTD.

📍 Rajkot-Morbi highway, Kagdadi, Rajkot, Gujarat 360003, India ☎ Customer Care : 8866998440

WATER PROOF

MeraGhar

Launch Event Gains Industry Attention



MeraGhar.Solutions marked its launch with the presence of Subir Palit, Chief Strategist at Konsonance Pvt. Ltd., whose participation brought valuable industry insight and strategic perspective to the occasion. He highlighted the platform's focused approach toward modular kitchens, wardrobes, doors, and furniture solutions, positioning it within the growing organised



home interiors segment. Palit emphasised the rising demand for integrated and customised living solutions, noting that platforms like MeraGhar.Solutions can simplify the consumer journey. The launch reflects a broader shift toward convenience-driven, design-oriented home improvement services in India's evolving residential market.



PLY GAZETTE

MONTHLY REPORT ON THE INDIAN PANEL AND SURFACE INDUSTRY

Amulya Mica

AGNEEPATH Charts Disciplined Growth Roadmap FY 2026–27

Amulya Mica set a decisive tone for the year ahead at its Annual Sales Meet held from 4th to 6th April, 2026, in Kolkata, unveiling “AGNEEPATH” as the central theme guiding its FY 2026–27 strategy. Symbolised by a phoenix rising from flames, the theme reflects resilience, transformation and the resolve to navigate a demanding and competitive market environment.

More than a symbolic narrative, AGNEEPATH has been positioned as a framework for disciplined execution, accountability and performance. The company’s leadership emphasised that enduring operational pressures and market challenges is essential to unlocking sustainable growth, especially at a time when India’s construction and interior solutions sector is witnessing steady expansion driven by urbanisation, infrastructure development and rising demand for premium products.

Central to Amulya Mica’s roadmap lies a renewed focus on financial discipline and operational efficiency. Managing Director Rakesh Agarwal stressed the importance of rationalising inventory, accelerating stock liquidation and tightening control over receivables. Reinforcing a results-oriented culture, he underlined that sales must be considered complete only upon realisation of



payments, ensuring stronger cash flow and financial stability.

A significant shift outlined during the meet is the transition towards data-driven decision-making. The first quarter of the fiscal year has been designated as a “cross-check” phase, where all strategies and initiatives will be evaluated against measurable outcomes. Sales Consultant

Sanjay Singh introduced structured planning frameworks such as DILO-WILO-MILO - daily, weekly and monthly planning systems designed to instil consistency, improve monitoring and enable informed execution. This marks a clear departure from intuition-led operations towards analytics-driven performance management.

Equally critical to the growth strategy is the development of an influence-led business model. The company aims to deepen engagement with architects, interior designers and key specifiers, recognising their growing role in shaping product selection and brand preference in modern projects. Long-term relationship building, supported by structured outreach programmes, is expected to enhance market penetration and brand recall.

Product innovation and portfolio strengthening remain vital to the AGNEEPATH vision. Director Abhishek Agarwal highlighted key offerings across the plywood segment, including established ranges such as Platinum Plus, Elite, Gold Plus and Gold, alongside the introduction of Saket Smart 710, a BWR-grade plywood featuring anti-borer and termite resistance with a 15-year warranty. In laminates, the company is focusing on premium innovations such as Scratch Ex surfaces, synchronised designs and refreshed catalogues aimed at reinforcing brand positioning in the high-value segment.

The company is also expanding its presence in emerging categories such as WPC and PVC-based products, as well as door frames, positioning them as durable and advanced alternatives to traditional wood



solutions. These additions align with broader market trends favouring sustainability, longevity and ease of maintenance.

Geographic expansion and enhanced customer experience form another pillar of the strategy. Amulya Mica plans to strengthen its footprint across key markets while investing in experience-driven retail formats, including galleries and shop-in-shop concepts. Marketing Director Shailja Agarwal Todi outlined the importance of these formats in elevating brand visibility and enabling customers to interact with products in immersive environments, thereby driving premium sales.

Mentor Subir Palit encouraged teams

to adopt a “3X mindset,” advocating improvements in productivity, structured working methods and performance-linked growth. His emphasis on disciplined execution and continuous improvement resonated with the overarching AGNEEPATH philosophy.

Adding an external perspective, Subroto Dey shared insights into prevailing market dynamics, offering guidance to align sales strategies with evolving customer expectations and competitive realities.

While the meet was strongly anchored in strategy and performance, it also celebrated organisational culture and team spirit. Awards, recognitions and promotions acknowledged individual and team contributions, nurturing motivation and a sense of belonging. A gala evening and interactive sessions further strengthened cross-functional collaboration, while a curated tour of Kolkata’s heritage landmarks provided a broader cultural context, linking the company’s growth journey with India’s evolving infrastructure narrative.

By the conclusion of the event, AGNEEPATH had evolved into a collective



organisational commitment rather than a thematic expression. With a clearly defined roadmap encompassing financial prudence, data-led execution, influencer engagement, product premiumisation and market expansion, Amulya Mica is positioning itself to capitalise on emerging opportunities while navigating industry complexities.

As the company steps into FY 2026–27, the path ahead may demand resilience and adaptability, but the message from Kolkata was unequivocal: through discipline, innovation and unified purpose, Amulya Mica aims to emerge stronger, true to the spirit of walking the path of fire.

Dubai WoodShow 2026

Set to Anchor Global Wood Industry During June, in MENA

The Dubai WoodShow is poised to once again consolidate its standing as the Middle East and North Africa (MENA) region's most influential business platform for the global wood and woodworking machinery industry.

Scheduled from 22nd to 24th June, 2026, at the Dubai World Trade Centre, the event is expected to draw an expansive cross-section of stakeholders, from timber suppliers and machinery manufacturers to furniture producers, interior solution providers, distributors, and procurement leaders, under a single roof.

From innovation to deal-making, the three-day exhibition promises unmatched global participation and industry momentum.

Positioned as a specialised business-to-business (B2B) exhibition, Dubai WoodShow has steadily evolved into a strategic convergence point for serious industry professionals. With participation historically spanning more than 140 countries, the exhibition offers a rare platform where buyers and sellers engage directly, negotiate in real time, and build long-term commercial relationships. In an industry where supply chains are global and margins hinge on sourcing efficiency, such direct engagement remains critical.



The 2026 edition builds on the momentum of its previous outing, which saw 17,830 professional visitors and 784 exhibitors from across the globe. With 12 country pavilions, the event not only reflects the scale of participation but also underscores the increasing role of national representation in shaping trade dynamics. These pavilions serve as focal points for government-backed enterprises and industry bodies, facilitating structured networking and policy-level engagement alongside commercial transactions.

At its core, Dubai WoodShow functions as a marketplace of ideas and innovation. Exhibitors will showcase a comprehensive spectrum of products and technologies, including medium-density fibreboard (MDF), veneers, decorative laminates, hardwood and softwood, oriented strand

board, particleboard, high-density fibreboard, and engineered wood products such as cross-laminated timber and glued laminated timber. The exhibition will also highlight advancements in woodworking machinery, coatings, and wood-plastic composites, segments that are increasingly critical as the industry pivots towards sustainability and efficiency.

Beyond product display, the exhibition is designed to facilitate high-value business outcomes. According to organiser data, 95% of exhibitors recommend participation to peers, while 94% report achieving their business objectives during the event. Equally significant is the quality of visitors, 92% are decision-makers or buyers, reinforcing the show's reputation as a results-oriented platform rather than a purely exploratory

one.

For exhibitors, the value proposition extends beyond immediate sales. The event offers premium branding opportunities, including prominent on-site visibility and access to exclusive networking receptions. These curated interactions enable participants to engage with key industry figures, government officials, and potential partners in a more focused setting. Additionally, tailored sponsorship packages allow companies to align their brand messaging with specific business objectives, maximising visibility across pre-event, on-site, and post-event channels.

Visitors, on the other hand, gain access to a concentrated ecosystem of expertise and opportunity. The exhibition provides a front-row view of emerging trends, from



sustainable forestry practices to advanced manufacturing technologies. It also serves as a gateway to new markets, particularly within the MENA region, where demand for wood-based products continues to grow alongside infrastructure development and urban expansion.

A defining feature of Dubai WoodShow is its ability to translate interaction into tangible business outcomes. Exhibitors frequently present exclusive deals during the event, creating a dynamic environment where negotiations are not only initiated but often concluded. This immediacy of transaction distinguishes the show from broader industry gatherings and reinforces its role as a commercial catalyst.

As global supply chains undergo

recalibration and industries seek resilient, diversified sourcing strategies, platforms like Dubai WoodShow assume greater significance. The exhibition offers a structured environment where stakeholders can assess market conditions, explore partnerships, and align strategies in response to evolving demand patterns.

With its combination of scale, diversity, and commercial focus, Dubai WoodShow 2026 is set to deliver a comprehensive industry experience. For participants across the wood, furniture, and machinery sectors, the event is not merely a date on the calendar, it is a strategic touchpoint for growth, collaboration, and future readiness in an increasingly competitive global marketplace.

JAI DAYAL PLYWOOD PVT. LTD.

AN ISO 9001 : 2008 CERTIFIED COMPANY

Manufacturers of :



ROSEWOOD[®]
COMPLETE PLYWOOD



Commercial & BWR

Plywood • Block Board • Flush Door

Manoj Goel : +91 99913 87899 | Ritesh Goel : +91 99911 87899

Vill. Naharpur, Khajuri Road, Yamunanagar – 135001 Haryana (India)

E-mail : infojdpl@gmail.com | ritesh@jaidayalply.in

Phenolic Resins



Dr. S.K. Nath

The article reproduced below is Chapter 22 – "Phenolic Resins" from the book entitled Plywood Manufacturing Practices in India - 2nd Edition. The book has been compiled and edited by Dr. S.K. Nath, Joint Director (now Retd.), Indian Plywood Industries Research and Training Institute (IPIRTI), Bengaluru (Karnataka). The book covers the entire production line of plywood manufacture suitable for small and medium scale industry under the Indian conditions.

Phenol formaldehyde (PF) resin was first used as synthetic resin in 1930 for gluing of timber. In their original form they were supplied as film for the manufacture of plywood and is still used occasionally.

Among phenolics, phenol and the resorcinol are the most widely used phenols whereas formaldehyde and to some extent furfural are mostly used as aldehyde.

Phenolics are complex in nature and the various structures present depend on the molar ratio of phenol to formaldehyde employed, pH of the reaction mixture and the temperature of the reaction. The reaction is proceeded by a catalyst – may be an acid or an alkali.

Phenol formaldehyde resin

The reaction of phenol with formaldehyde involves a condensation reaction which leads, under appropriate conditions, to a cross-linked polymer. The initial phenol formaldehyde reaction products are of two types: i) Novolac and ii) Resol.

PF can be made in two different

methods. In the first method phenol is allowed to react with excess of formaldehyde in the presence of an alkali catalyst. Molar ratio of phenol to formaldehyde is 1:1.8 to 2:22 are employed for plywood resin. Resins are prepared and stabilized in presence of excess of alkali. These resins are cured by applying heat under the action of alkali present with the resin. Such resin is referred to as "resol".

The second type of PF resin is prepared by reacting phenol and formaldehyde in the phenol : formaldehyde ratios of 1:0.8 – 1.0:1.0 are used. The product obtained is insoluble in water and known as "novolac". However, this is not suitable for wood bonding. It can be further reacted by adding formaldehyde/paraformaldehyde/hexamethylenetetramine in presence of alkali to produce thermosetting resin.

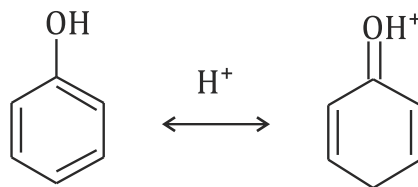
For plywood, resol type PF is being widely used. This is available both in liquid in aqueous medium or powder form. Novolac resin converted to resol form is also been used in India for plywood manufacture.

Chemistry of Phenol Formaldehyde Condensation:

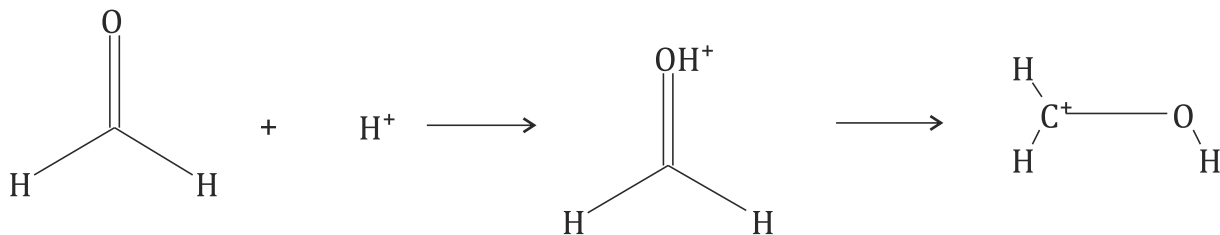
Phenol reacts with formaldehyde in presence of an acid or an alkali to form monomethylol-phenol and then dimethylol phenol. Formaldehyde attacks the phenol in ortho- and para-position relative to -OH group in the benzene ring. In phenol, para position has slightly greater affinity for formaldehyde than the ortho position and the relative reactivities are 1.4 and 1.7 respectively for ortho and para position. Also the

introduction of a methylol group decreases reactivity of the remaining nuclear position towards formaldehyde. The molar ratio of phenol to formaldehyde is maintained at 1:1.8 to 2:22 for making phenol formaldehyde for various end uses.

Acid catalysis: Novolac resins are obtained with acid catalysis, with a deficiency of formaldehyde. Phenolic rings are considerably less reactive as nucleophilic centres at an acid pH, due to hydroxyl and ring protonation.



However the aldehyde is active by protonation which compensate for this reduction in potential reactivity.



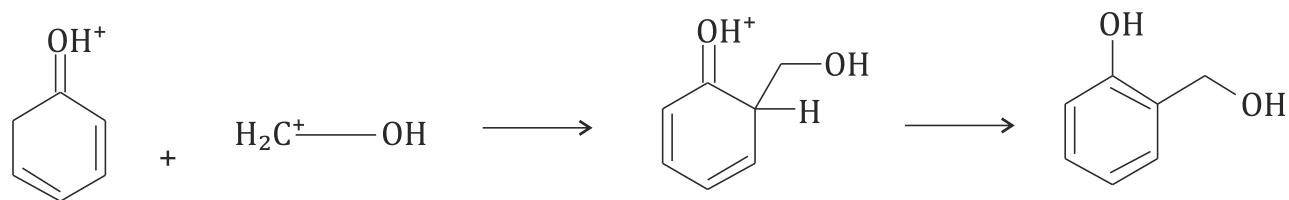
The substitution reaction proceeds slowly, indicating slower rate of formation of methylol phenol.

Bhutan tuff
#AbTuffKaHaiZamana

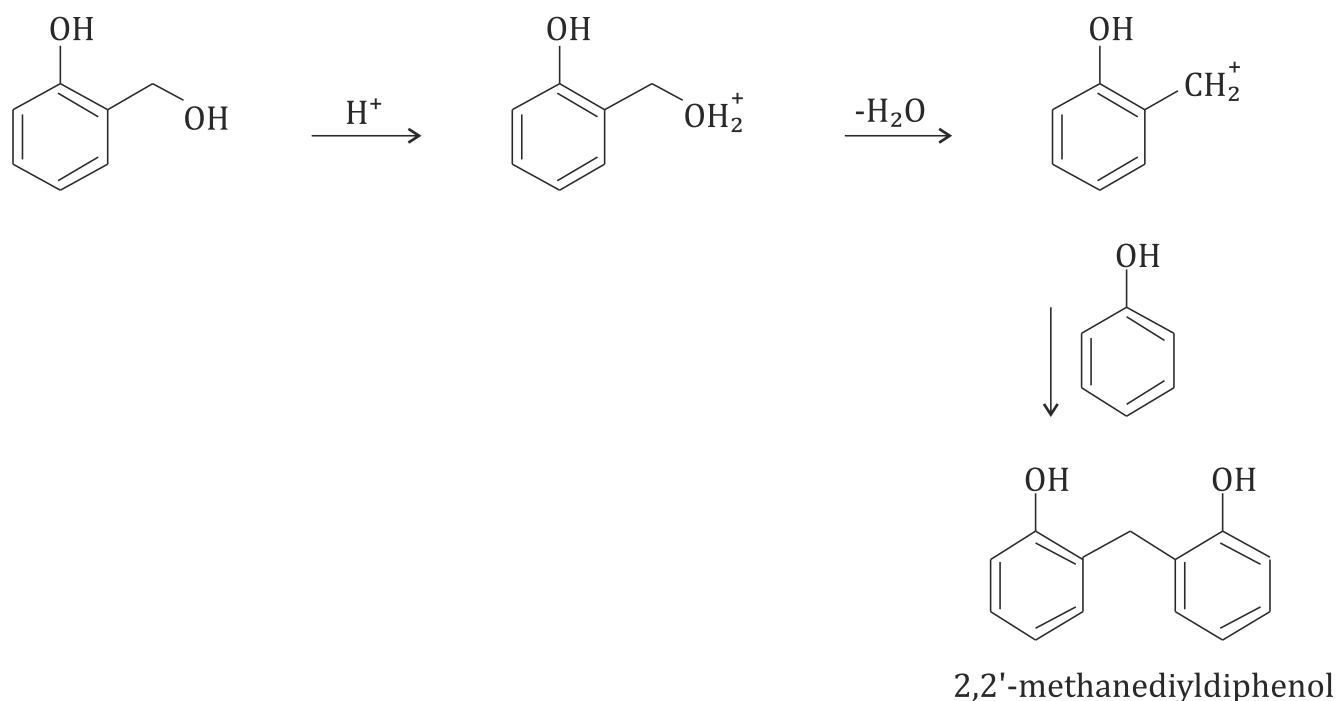
Veneer

CHOOSE THE RIGHT MATERIAL FOR YOUR HOME,
CHOOSE BHUTAN TUFF

Bhutantuff_



Condensation follows as a result of further protonation and the creation of a benzylic carbonium which act as a nucleophile.



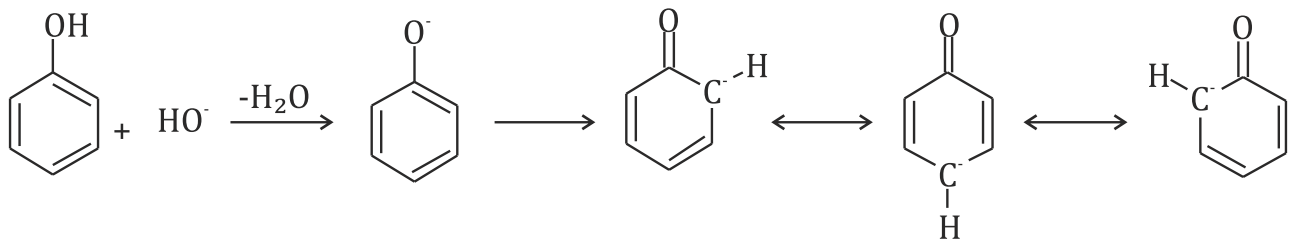
Another two isomers are also formed by similar reaction.



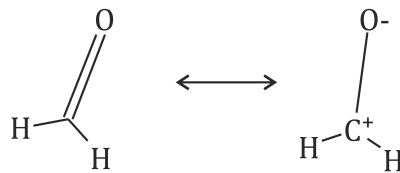
Novalac resin do not themselves contain reactive methylol group and are not capable of forming polymer on heating. However, on addition of paraformaldehyde or hexamethylenetetramine, they react further to infusible thermoset product.

Alkaline Catalysis: Resols are formed as a result of alkaline catalysis and with an excess of formaldehyde. In the presence of alkali, the function of phenol as nucleophile is strengthened by ionization of phenol, without affecting the activity of formaldehyde.

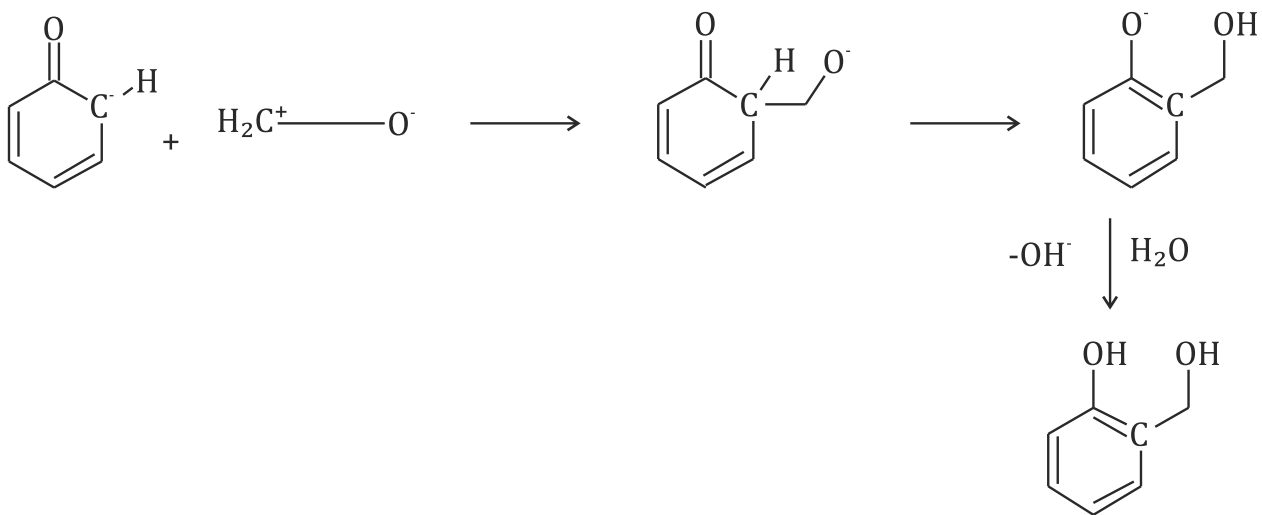
i)



ii)



iii)



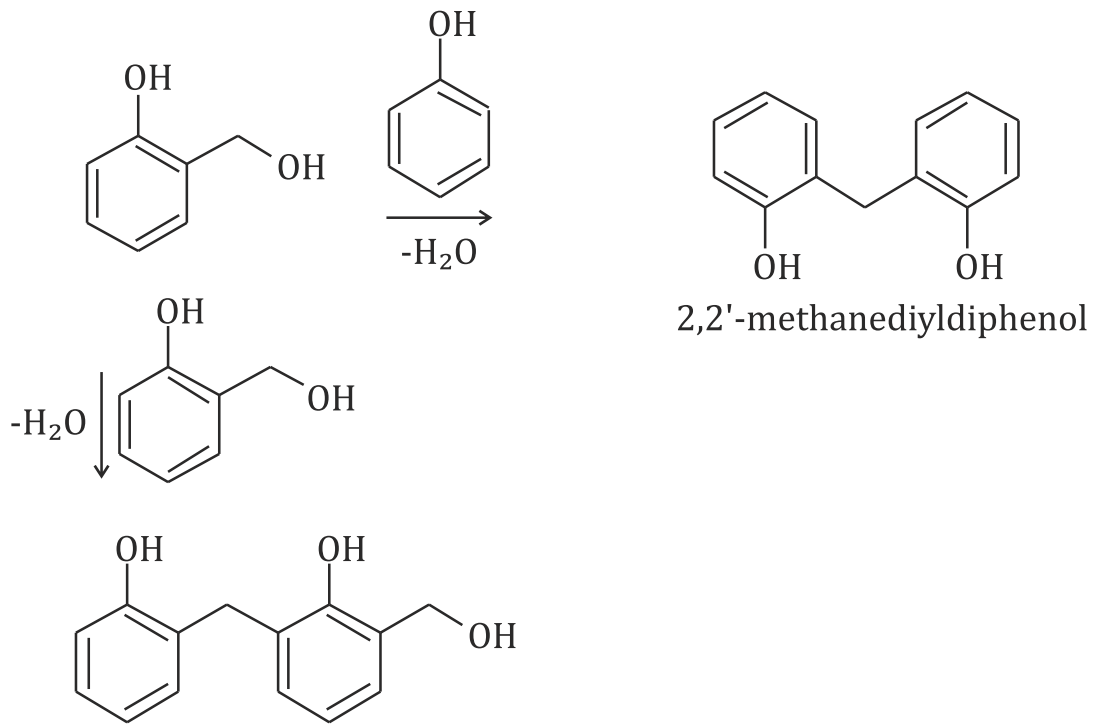
SIPL
SINCE 1972

**Termites nowhere near,
SIPL Block Boards**
← Rahe bilkul clear

Termite and Borer Proof

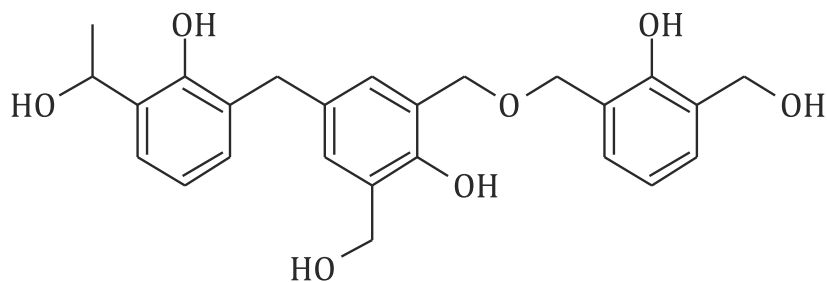
www.siplgroupindia.com | +91 95128 44464 | info@siplgroupindia.com

iv)



2-(2-hydroxybenzyl)-6-(hydroxymethyl)phenol

In this case, formation of phenol alcohol is rapid but their subsequent condensation is slow. Thus there is a tendency for polyalcohols as well as monoalcohols, to be formed. Mildly condensed liquid resols have an average of less than two phenolic nuclei in the molecule. Solid resols have average three to four phenolic nuclei but with a wider distribution of molecular size. A typical resol have the structure:



PLY GAZETTE
MONTHLY REPORT ON THE INDIAN PANEL AND SURFACE INDUSTRY

Heating of these resins result in crosslinking via residual formaldehyde, uncondensed methylol group or by more complex mechanism. The resols are sometimes referred to as one stage resin since the cross linked products may be made from the initial reaction mixture slowly by adjusting pH.

On the other hand novolacs are called two stage resin. Novolacs are mixtures of isomeric polynuclear phenols of various chain lengths with average five to six phenolic nuclei per molecule. They contain no reactive methylol group and consequently further cross linking is not possible by simple heating. However, on addition of formaldehyde they react quickly in alkaline medium to produce methylol derivatives of the polyphenols. Further cross-linking to resin polymer takes place as in case of resol resin.

The difference between acid catalysed and base catalysed processes are (i) in the rate of attack of formaldehyde on phenol, (ii) in the subsequent condensation reaction of phenolic alcohals and (iii) in the nature of condensation reaction.

Preparation of Phenol formaldehyde Resin:

A. Single stage conventional method:
100 parts of liquid or molten phenol is charged into resin kettle followed by 160–180 parts by weight of formalin (37% formaldehyde). Stirring started and continued till the end of reaction. 6–8 parts of caustic soda in 50% aqueous solution is added to it. The mixture is heated initially. The reaction is exothermic and as soon as the exothermicity starts, heating is discontinued. Control of temperature is very crucial at this stage. The reaction temperature is maintained at 90° - 92°C. When the viscosity of the resin 80 - 130 cp or flow time is 25–40 secs. in B4 flow cup of IS:3944/1969, the resin is taken to be ready. Reaction is arrested by circulating cold water through the jacket until the resin is cooled. The reaction requires 1–1½ hours for completion.

B. PF resin by two stage process:

Novolac resin: 100 parts by weight of phenol and 60 parts by weight of formalin (37% formaldehyde) are charged into resin kettle. Stirring started and continued till the end of reaction. 2 parts by weight of oxalic acid in 33 parts by weight of water is added in case

of acid catalysed novolac resin. In case of alkali catalysed novolac resin 6 parts of alkali in 33 parts of water is added. The reaction is carried out at $90 \pm 2^\circ\text{C}$ for two hours. At the end of first stage reaction white insoluble product is formed which separates from aqueous layer on keeping. The resin is cooled to 60°C .

Resol resin: 14–18 parts by weight of sodium hydroxide dissolved in 66 parts of water is added in case of acid catalysed novolac resin or 8–10 parts of caustic in 66 parts of water is added to the kettle in case of alkali catalysed novolac resin. 120 parts by weight of formalin (37% formaldehyde) is added next. Exothermicity is carefully controlled at this stage. Reaction is further continued at 85°C . When viscosity of the resin is 90–140 cp or flowtime 30–40 secs in B4 flow cup of IS:3944/1969, the resin is cooled and discharged from the kettle.

The resin is completely water soluble. It has solid content of 42–43 percent and self life of one month at $20^\circ - 25^\circ\text{C}$.

Since resol can gel in the kettle if over cooked, the progress of the reaction should be monitored carefully during manufacture. Tests have to be done to determine the degree of advancement of the resin and when the batch should be discharged. In general advancement of the resin is monitored by (1) measuring the viscosity or flow time of the resin at ambient temperature (2) measuring the turbidity point (water tolerance) i.e. precipitating the resin in water.

Preparation of powder Phenol Formaldehyde Resin:

Phenol formaldehyde adhesive in the powdered form is also used to manufacture

plywood. There are several advantages attributed to powdered resin compared to their liquid counterpart. Faster curing rates (since water does not have to be eliminated from the system), better resin distribution, lower total resin loading and longer storage time.

Method of Preparation: Phenol, formaldehyde and sodium hydroxide (molar ratio 1.0 : 2.0 : 0.2 to 0.4) are reacted in a resin kettle. The phenol (100 percent of requirement), formaldehyde solution (90% of requirement), sodium hydroxide (50% percent of requirement) and enough water to achieve 40 percent resin solids are charged in the resin kettle and held at 60°C for 30 minutes. The balance amount of formaldehyde and 25 percent of sodium hydroxide are added and the mixture is heated to 85°C and kept under stirring at this temperature for another 30 minutes. The balance amount of 25 percent sodium hydroxide is then added and the reaction is held at 85°C for 150 minutes, after which it is cooled rapidly to room temperature.

The resin is then spray dried at the inlet temperature of 160° to 200°C depending on the desired particle size. Lower particle size is obtained with lower inlet temperature, greater feed rates, higher spray flows and lower solution resin solid. Powder having higher molecular weight values resulted from higher inlet temperature, lower feed rates, lower spray flow and higher solution resin solids. The retention of free formaldehyde in the powdered resin depends on the drying temperature – lower the temperature higher the percent of free formaldehyde.

General Properties of Phenol Formaldehyde Resins:

Resol resin is dark yellow, orange reddish or brownish; novolacs are lighter than resols. Neutralized resols on curing becomes almost colourless.

Phenolic resins are stable upto 200°C. Above this temperature they begin to char slowly and higher the temperature charring is more rapid. At about 400°C, decomposition is rapid, yielding phenol and formaldehyde, leaving a cokelike residue.

Resol resins are soluble in water and

alcohols, novolacs tend to be more soluble in hydrocarbons. Cured resins are unaffected by ordinary organic solvents and water and also most acids except sulphuric acid stronger than 50%, formic acid, citric and chromic acid. Simple PF is attacked by sodium hydroxide.

The insolubility of hardened resins in acetone is used as a test of degree of cure of the resin. The higher the temperature of hardening, the lower the amount of acetone extractives. A few other properties of PF resin are given in Table 22.1.

Table 22.1 General properties of Phenol Formaldehyde Adhesive

Durability classification:	Weather and boil proof
Form of adhesive component:	Glue film, powdered resin to be mixed with water, alcohol, etc., liquid resin. Fillers and extenders are frequently used.
Storage life at 20°C:	Film 6-12 months, powdered resin 6 months, liquid resin 1-2 months.
Usable life at 20°C:	Film – not applicable, liquid resin -upto 24 hours.
Assembly time at 20°C:	Varies with species of timber used, may be 2 hours to 24 hours or even longer.
Curing temperature:	130° – 150°C
Cramping pressure and period:	Several minutes at above temperature under 7 kgs – 21 kgs/cm ²
Setting action:	Poly condensation
Glue spread in kgs/sq.m. (double glue line):	Film to cut into appropriate size. Liquid resin of 50% solid content 320 gms to 400 gms
Gap filling properties:	Poor to moderate
Conditioning period at 20°C:	4 – 48 hours
Application in wood working industries:	BWP exterior, marine and shuttering grade plywood. Also for manufacture of composite material like metal/wood composite.

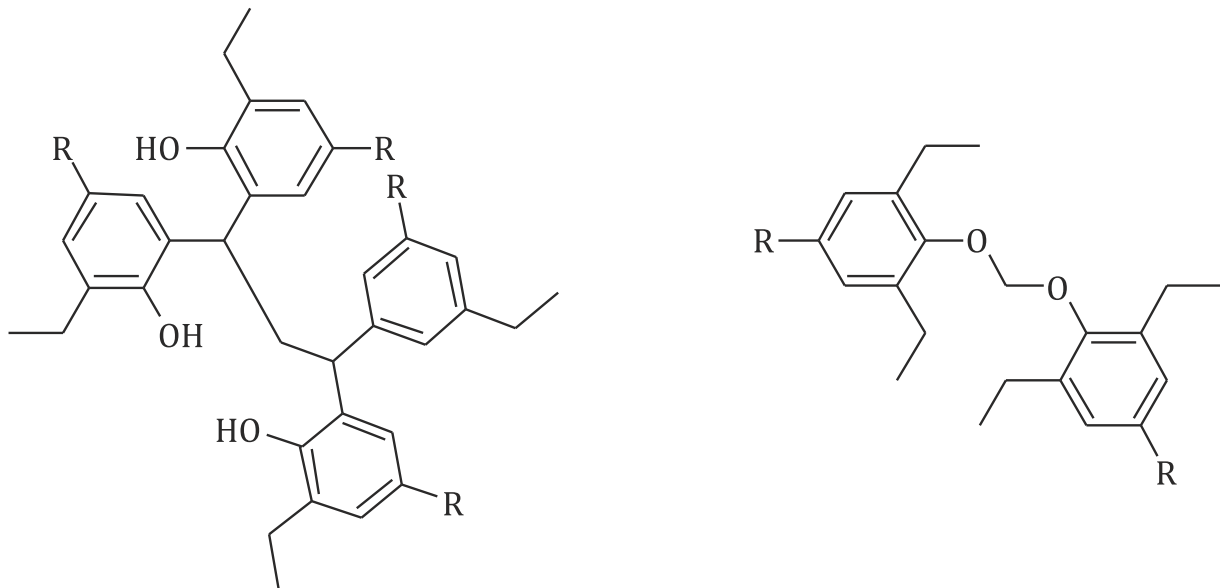
Curing characteristics of PF resin: Resol resins which are used for plywood manufacture have low molecular weight mono- and polyalcohols. These low condensed polymer when heated above 100°C, they are converted into partly linked polymer and the product becomes viscous and eventually rubbery which are insoluble in usual solvents like water and alcohols. Further heating changes the low condensed polymer to branched and cross-linked three dimensional network and the product becomes insoluble and infusible mass.

Novolacs also pass through the same sequence of changes if heated with methylene supplying agents under alkaline condition.

Curing of resol resin can be done by

adding strong acid. The acid initiate condensation of the methylol groups with the phenolic nuclei may be exothermic enough to reach temperatures high enough to complete the hardening, even at room temperature.

During the process of hardening at 140°C phenol formaldehyde resols gives products containing methylene bridges ($-\text{CH}_2-$) and methylene ether links ($-\text{CH}_2-\text{O}-\text{CH}_2-$) with molecular weights of approximately 5000. The methylene links are stable irrespective of further increase in temperature. Either links are stable only upto 160°C. At higher temperature (i.e. 200°C–230°C) these polymerises into inert resins. The cure resins have the following structure.



PLY GAZETTE

MONTHLY REPORT ON THE INDIAN PANEL AND SURFACE INDUSTRY

It is preserved that there are relatively large holes at certain points throughout the mass which perhaps due to trapped water or catalysist molecutes. These forms points of weakness because tensile strength of the cured resin is very much less than the theoretical value.

Curing temperature of Phenol Formaldehyde Resin: PF adhesives are available in liquid, powder and film form. For plywood manufacture, normally resol resin is used. Single stage conventional alkali catalysed (5–8% caustic on phenol by weight) is widely used in India for manufacture of exterior grade, weather and boil–proof plywood. It is cured at high temperature between 140° to 150°C.

The same resin can be cured at room temperature by using acid catalyst. The pH of the resin is lowered by addition of acid like para totrene sulphonic acid to make it room temperature setting at about 15°C or higher.

The curing temperature of phenolic resins can be lowered by increasing alkali content in it. Thus two-stage high alkali (16–18 parts by weight on phenol) content

resin sets at 125°–135°C. For even faster curing at this low temperature range, an accelerator is added to the resin. Use of resorcinol formaldehyde or tannin formaldehyde (mimosa, quebracho or wattle) or paraformaldehyde enhance curing of PF resin at the temperature 125°–135°C.

Highest temperature is needed for curing film glue is about 145°–150°C.

Where pre–pressing is a normal practice, the average molecular weight of the resin and its distribution are the critical properties to effect curing of resin. For example, too many high molecular weight units will contribute to dry out, produce very fast curing of resin and will give good prepress tack. In contrast, too many low molecular units may cause, under cure, over penetration and poor prepress. It is a normal practice to use a comparatively viscous resin for prepressing than that used for manufacture of plywood by direct hot pressing.

Durability of PF resin:

Alkali catalysed PF resin gives most durable plywood if cured under proper conditions. Once properly cured this adhesive does not show any deterioration under severe



Durability mein kamaal,
SIPL Flush Doors
Chale saalon saal



 www.siplgroupindia.com  +91 95128 46464  info@siplgroupindia.com

condition of weather i.e. heat and cold or moisture. Even severe dryout and moistening do not affect phenol formaldehyde bonded plywood. The resin forms boiling water proof plywood. The resin can also resist dry heat above the charring temperature of wood. Plywood made with this resin does not show delamination when subjected to prolonged heating, both dry and wet, and alternate heating and cooling. In fact the resin show higher durability that the timber itself. A properly cured glue-line cannot be exposed without destroying adjucent wood.

Plywood made out of phenol formaldehyde resin has other advantages too. It is also resistance to chemicals such as oil, alkalies and wood preservatives including fire-retardent chemicals.

Room temperature-setting phenol formaldehyde adhesive donot achieve as high a joint strength as properly cured hot-setting phenol resin of the alkaline type, but do maintain their initial strength under conditions of severe exposure. The high percentage of wood failure which results from tests suggests that acid catalyst cause damage to the wood. In addition, the adhesive

does not appear to have the same resistance to high temperatures as the hot setting phenols. Room temperatures setting phenolic resins are most likely to damage timber fibres seriously under hot humid conditions.

Resocrcinol Formaldehyde, Resorcinol phenol formaldehyde resin:

Resorcinol is meta-dihydroxy benzene. It forms white needle-like crystals, m.p. 118°C and turns grey in air due to oxidation. It is very soluble in water, alcohol and ether. Since it is chemically related to phenol, its reaction with formaldehyde is similar to phenol. But because of the presence of two hydroxyl group in meta position to each other in benzene ring and both the groups being ortho and para directing, resorcinol is highly reactive in ortho and para positions relative to hydroxyl groups in the benzene ring (position 2,4,6).

Because of high reactivity of resorcinol with formaldehyde and the reaction is being exothermic in nature, resorcinol formaldehyde (RF) resin is room temperature setting. For the same reason this resin cannot be prepared like phenol formaldehyde, rather its preparation follows a two steps method in



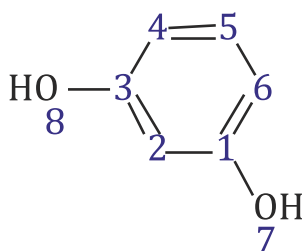
which resorcinol is first reacted with low molar ratio of formaldehyde to make novolac resin and the remaining part of formaldehyde is added before application of the adhesive, which leads to further polymerization and the resin hardens at ambient temperature.

Phenol formaldehyde resin used as cold setting adhesive is highly acidic which have deteriorating effect on wood fibre. Resorcinol formaldehyde based adhesive, on the other hand, cures at neutral pH at room

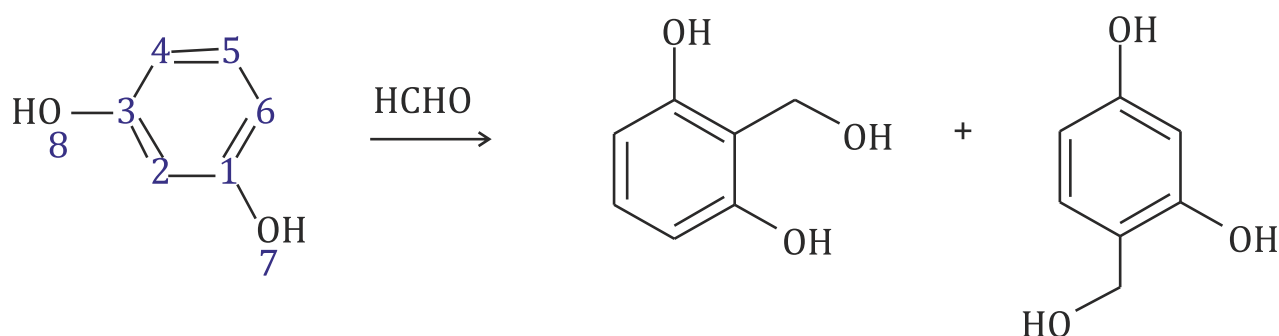
temperature. But resorcinol is costly to be used as wood adhesive on commercial basis. It has been found that most of the important adhesive properties of resorcinol formaldehyde can be retained and cost of resin can be reduced if part of the resorcinol in the resin is replaced by phenol. The usual replacement is upto one half of the molecular proportion of total phenol. Further replacement of resorcinol by phenol show deterioration in quality of the co-polymer.

Chemistry of Resorcinol based Resin

The structure of Resorcinol molecule is:



Hydroxyl group OH^- is ortho and para directing and hence position 2, 4 and 6 will be highly reactive. Any incoming group will normally enter into these positions. It is seen that position 2 is ortho to each hydroxyl group and position 4 and 6 are ortho to one and para to other hydroxyl group and these two positions are identical. When a molecule of formaldehyde reacts with resorcinol to form methylol resorcinol, the methylol group either enter into position 2 or one of 4 or 6 which are same.



The reaction can be initiated by heating the mixture of resorcinol and formalin. No catalyst is required to initiate the reaction. The reaction is highly exothermic and once started, proceeds vigorously to thermoset stage unless carefully controlled. This is because of the fact that once intermediate novolac compound is formed the second reactive point in the benzene nucleus becomes highly reactive and chain reaction propagates in presence of formaldehyde till active sites in the benzene nuclei are available. The thermoset resin is a cross-linked structure where resorcinol molecules being held by methylene groups.

Factors influencing reaction of Resorcinol and Formaldehyde.

The reaction rate between resorcinol and formaldehyde is dependent on several factors e.g. mole ratio of resorcinol and formaldehyde, concentration of the reactants, pH, temperature, presence of catalyst and its nature, presence of alcohols.

In the presence of excess of formaldehyde once the reaction is initiated will continue till thermoset stage is reached

and obtaining a resole resin is difficult by controlling the reaction. This is the reason why RF resin is prepared in two steps – first by reacting smaller proportion of formaldehyde with resorcinol and residual amount of formaldehyde is added to the resultant product at the time of application of the adhesive.

pH has great influence on resorcinol formaldehyde reaction. The reactivity is high at low pH (i.e. high acid, catalysis) when pH is about 2 or below, but again decreases as pH is increased to 3 and this tendency continues till pH 5. Rate of reaction increases again when pH of the reaction mixture is increased to 7 or above.

Monohydric alcohols have retarding influence on the rate of reaction of resorcinol and formaldehyde. Experiments have shown that methanol has the greatest tendency to lengthen gel time, while other alcohol has less effect. This effect is due to temporary formation of the formals between alcohols and aldehyde which in turn reduces rate of reaction because of the smaller concentration of free formaldehyde. Other solvents may affect the rate of reaction by formation of

SIPL lightweight
Particle Board ke saath,
Craft karna hai ek aasan baat

Lightweight for making
General projects

www.alpigroupindia.com +91 95128 46464 info@alpigroupindia.com

complexes or due to hydrogen bonding with the resorcinol. Thus alcohol or other solvents have very important part to play in controlling reaction rate which would otherwise be very fast or violent and controlling the reaction or getting a product of definite viscosity would be impossible.

Manufacturing Details

1) Resorcinol Formaldehyde Resin

Method I: 10 kgs of resorcinol and 2 kgs of formalin (37% formaldehyde content) are charged into resin kettle and heated under reflux to about 100°C to form a homogeneous solution. An additional 3 kgs of formalin (37% formaldehyde content) is slowly introduced. The rate of addition should be so regulated that the heat of reaction does not exceed the cooling capacity of the reflux condenser. During this time the reaction mixture should be vigorously stirred in order to prevent any local formation of gelled particles. As soon as all the formalin has been added, 60 gms of oxalic acid is introduced and the reaction mixture is further refluxed for about 5 minutes to ensure complete reaction of all the formaldehyde. The product is then diluted with 10 kgs of water. The solution has a pH

between 1.5 and 3, and is neutralized with a solution of 250–300 gms of sodium hydroxide in 600 ml of water.

The resin solution may be concentrated by distillation under vacuum and brought back into solution with an organic solvent such as alcohol. The dark coloured resin solution obtained is stable on storage for about one year at room temperature.

Method II: 10 kgs resorcinol is dissolved in 8 kgs water in a resin kettle. 5 kgs formalin (37% formaldehyde content) is added to it. pH of the mixture is adjusted to 7.0 – 7.5 with 50 percent solution of sodium hydroxide. The mixture is stirred and heated to 80° – 85°C and maintained at that temperature until the desired polymerization is reached which is determined by resin viscosity (100–200 cp). The time required for this cycle is about 1 hour. This resin is cooled thoroughly to room temperature and stored. Storage life of the resin is about one year.

Resorcinol Phenol Formaldehyde

Resorcinol formaldehyde is an ideal cold setting resin for manufacture of glulam and other wood working purposes. But



Preparation of Resorcinol Phenol Formaldehyde

10 kgs of molten phenol is charged into a reaction kettle followed by 20 kgs formalin (37% formaldehyde content). The pH is adjusted to 9.5 – 10.0 by 650 – 750 gms of sodium hydroxide dissolved in 1.5 kgs of water. Stirring started and continued till the end of reaction. The mixture is maintained at about 70° – 75°C for 2 – 2 ½ hours till desired polymerization is reached which is determined by viscosity (50 – 100 cp) of the

resin solution and its water tolerance (about 1:12). The temperature of the solution is brought down to 50° – 60°C. 11.7 kgs of resorcinol is added slowly with constant stirring and condensation is continued at 70° – 75°C to get the required degree of polymerization (about 200 cp) and water tolerance (1:6). The resin is cooled to room temperature by circulating cold water through the jacket of the resin kettle. The resin obtained has a pH of 7.2 – 7.5 and has a storage life of about 2–3 months at 20° – 25°C.

Table 22.2 General properties of Resorcinol Formaldehyde and Phenol Resorcinol Formaldehyde Adhesives

Durability classification :	Weather and boil proof suitable for all timber joints under all conditions of exposure.
Form of adhesive components :	Chocolate or reddish brown resin in liquid form. Hardener also supplied as viscous brown liquid.
Storage life at 20°C :	Resin upto 12 months. Powder hardener usually indefinite Liquid hardener – 12 months.
Usable life at 20°C :	3 – 9 hours
Assembly time at 20°C :	45 minutes to 2 hours
Curing temperature :	15°C to 100°C
Cramping pressure and period :	General gluing from 10 hours at 15°C to several minutes at 100°C under 50-100 psi. Timber Engineering: Minimum 16 hours at 25°C for interior use and 40°C for exterior use. Pressure 7 kgs/cm ² for soft wood and 10.5 kgs/cm ² for hard woods. For marine work: 24 hours at 60°C or above under 10.5 kgs/cm ²
Setting action :	Poly condensation

Glue spread in sq.m/kgs :	5–7 for general gluing 2–3.5 for timber engineering 4–7 for plywood
Gap filling properties :	The gap filling properties of the resin are generally improved by the addition of fillers at time of preparation.
Conditioning period at 20°C :	6–9 days. If elevated temperatures are used in excess of 60°C, it is usually only necessary to allow the assembly to cool to shop–floor temperature.
Applications in wood working industries :	Special plywood, interior or exterior, engineered timber structures, timber assemblies and structures for marine work and dock and harbour installations.

Curing characteristics of RF and RPF Resins

Commercially, resorcinol adhesives are available in two components – a resin which is dark reddish liquid with 50-70% solid content and a hardener which may be in powder or liquid form. The hardener is usually a mixture of para formaldehyde and filler. The para formaldehyde is selected for control of glue mix working life and curing efficiency. It dissolves slowly in water or alcohols by depolymerization to its monomer formaldehyde. The rate of dissolution of para formaldehyde and hence its depolymerization is dependent on the particle size and pH of the medium. It is to be mentioned here that RF resin remains in a semi polymerized state which requires more formaldehyde for further polymerization and hence curing of the resin and its working life can be adjusted by proper selection of para and by adjustment of pH. Sufficient para is

incorporated to provide about 50% excess over the theoretical amount needed to completely cross link the resin.

Resorcinol adhesives cure at 25°C and above. Curing below this temperature is not recommended as it requires too long cramping period. For gluing of softwood laminated members, to be used in exterior exposure conditions (the equilibrium moisture content of the timber in service will exceed 10%), a cramping period of 16 hours is recommended with a minimum glue line temperature of 38°C and a pressure of 7 kgs/cm². When hardwoods are used for the same exposure, the pressure and temperature will probably require higher, but this will depend upon the density of the species. For dense species the pressure should be increased to 10.5 kgs/cm² and the glue line temperature to approximately 70°C for a period of 24 hours. Glulam members for interior use require cramping for 16 hours at a

glue line temperature of approximately 25°C and a pressure of 7 kgs/cm². Both temperature and cramping period may require to be increased if the condition of exposure are exceptionally severe or if the radius of curvature to which the laminations are bent is very a cute.

Timber to be glued with resorcinol type resins should never exceed its moisture content above 15% at time of gluing. The ideal moisture content is 8–12%. When high temperatures are used care must be taken to ensure that adequate humidity control is maintained, so that drying and shrinking of the timber is controlled and damage to the glue line is avoided. For instance, at 95°C, a relative humidity of approximately 90% is required to maintain a moisture content of 15%.

The closed assembly period for resorcinol adhesives is around 45 minutes at 20°C for low temperature setting types, which increases upto two hours for those specially formulated to cure at high temperatures 65° – 90°C.

After curing, if any heavy machining is undertaken, a conditioning period of seven days at room temperature is necessary to allow the glue lines to reach maximum strength as this is not achieved during the cramping period unless high curing temperatures are used. If the curing temperature is in the region of 95°C, the conditioning period need not be longer than the time that the member takes to cool completely.

Durability of RF and RPF Resin

Resorcinol adhesives are normally

able to withstand severe conditions of exposure, including heat and humidity and the strength of the glue joint is largely determined by the ability of wood to resist the conditions of exposure. These resins comply with the highest requirements of all specifications and have outstanding durability under the most severe service conditions. These adhesives are also suitable to bond treated wood, making it feasible to treat the lumber or plywood and then glue the assemblies to the desired size and shape. If properly cured, resorcinol based adhesives are more durable than substrate wood.

Durability of RF and RPF cold setting adhesives due to their setting pH around 7.0 (6.5 to 7.0 for RF and 7.0 to 7.5 for RPF) is higher compared to cold setting acid catalyzed PF resin. Strong acids which are used as catalyst with cold set PF ultimately attacks timber and makes timber less durable. On the other hand, RF or RPF resins cured at neutral pH are not harmful to timber and the bond obtained are gap filling, proof against boiling water, resistant to acids and mild alkali as well as many of the common solvents.

The ability to withstand severe exposure makes resorcinol type adhesives the natural choice for use in constructional members in bridges, small ships, overhead cable standards, as well as buildings such as dye works and chemical work.

The only big disadvantage of the resorcinol type resins is their high cost compared to other class of resins used for structural work. Even the copolymer, RPF resin is about five times costlier than ordinary phenol formaldehyde resin. This reason has

perhaps limited its use only exclusively in some specialized items.

References

1. Martin, R.W. The Chemistry of Phenolic Resin, 1956
2. Charles, V.C. Adhesive Bonding, McGraw Hills Book Company, New York, 1968.
3. Lyngcoln, K.J. Exterior Adhesive For Ply wood, Report to J.S. Gottstein Fellowship Trust, 1980.
4. Pizzi, A., Wood Adhesive-Phenolic Resin Wood Adhesives, Marcel Dekker Inc., New York, 1983.
5. Sellers, T. Jr. Plywood & adhesive Technology, Marcell Dekker Inc, New York, 1985.
6. Collins, P.J., Palmer, R.E In India, IPIRI J., 1971, 1(3), 92-96. CSIRO/PAA Plywood Production Course, Lecture Notes Vol.2, CSIRO Div. of Chem & Bldg, Rc. Australia, 1986.
7. Gollob, L., Krahmer, R.L., Wellons, J.D. and Christiansen, A.W., Relationship Between Chemical Characteristics of Phenol formaldehyde Resin and Adhesive Performance. For. Prod. J., 1985, 35(3), 42.
8. Gollob, L, The Interaction of Formulation Parameters With Chemical Structure and Adhesive Performance of Phenol Formaldehyde Resin, Ph.D, Dis, Oregon State University USA, 1983.
9. Haupt, R.A., and Sellers, T.Jr., Phenolic Resin-Wood Interaction For. Prod. J., 1994, 44(2), 69-73.
10. Victor, V.J., Lalitha, H.C. and Joseph George, Resistance to Sustained Load of Polyvinyl Acetate Dispersion Based Adhesives. IPIRI J., 1971, 1(3), 148-151.
11. Chung-Yun, H.C., Wettability of Southern Pine Veneer By Phenol Formaldehyde Wood Adhesives, For. Prod, J., 1972, 22(1), 51.
12. Malhotra, H.C. and (Mrs.) Avinash, Kinetics of the Acid catalyzed Phenol Formaldehyde Resin, J. Of Appl. Polym. Sc., 1976., 20, 2461-71.
13. Megaon, N.J.L., Molecular Structure and Its Influence on The Properties of Phenolic Resins. Br. Plast January 1948, 27-31 P.
14. Bureau of Indian Standard, IS: 848-2006, Synthetic Resin Adhesive for Plywood.
15. Bureau of Indian Standard, IS:851-1978. Specification for Synthetic Resin Adhesives For Construction Work (non Structural) In Wood (First Revision).

SCM

Integrated Innovation Redefines Smart Manufacturing at Xylexpo 2026

At Xylexpo 2026, scheduled from 9th to 12th June at Fieramilano Rho, SCM will reaffirm its role as a strategic partner for the global wood industry, presenting a comprehensive ecosystem of technologies, software, and digital services designed to transform modern manufacturing.

Located in Hall 14, the Italian Group's presence will go far beyond a traditional machinery showcase. Instead, SCM is positioning itself as an enabler of end-to-end production excellence, offering integrated solutions that connect every stage of the manufacturing process, from raw material handling to finished product delivery. This approach reflects a broader shift within the industry, where competitiveness increasingly depends not on standalone machines but on intelligent, interconnected systems.

A major highlight at the SCM stand will be the exclusive preview of the new accord 500 edge CNC machining centre. This latest addition to the accord range represents a



significant leap forward in multifunctional machining, integrating advanced edgebanding technology into a single, versatile platform. Designed for medium and large-scale manufacturers, the machine is tailored to meet the complex demands of sectors such as contract furniture, residential interiors, marine applications, and caravans.

The accord 500 edge combines flexibility with high productivity, enabling manufacturers to execute multiple processes within a compact footprint. Its H80C "Compact" edgebanding unit, equipped with automatic tool, glue, and edge changers, ensures seamless transitions between different operations.

Independent operating units enhance efficiency, while advanced extraction systems maintain cleanliness and consistent performance across varied working conditions. For manufacturers operating on just-in-time models, the machine offers the advantage of consolidating multiple factory functions into a single solution.

Supporting this hardware innovation is SCM's Maestro software suite, including the Maestro active interface and Maestro lab CAD/CAM programming environment. These tools are designed to simplify production workflows, improve programming efficiency, and provide greater control over machining processes. The addition of Maestro lab edge further enhances capabilities by enabling comprehensive management of edgebanding operations and application strategies.

Beyond machinery, SCM's focus at Xylexpo 2026 will extend to digital transformation. The company will showcase a new development paradigm centred on connected, flexible, and sustainable production systems. This approach incorporates WinMES, SCM's Manufacturing Execution System developed in collaboration with Tecnest. Acting as the "digital brain" of the factory, WinMES integrates real-time data to optimise production flows, streamline decision-making, and enhance overall operational control.

Complementing this system is Smart Spindle, an advanced sensor technology that enables predictive maintenance by analysing spindle performance and identifying



potential issues before they lead to downtime. Meanwhile, SCM's upgraded IoT platform will demonstrate how data-driven insights can significantly improve efficiency, product quality, and cost management—delivering measurable gains across manufacturing operations.

Recognising the growing importance of data security, SCM will also present its Cybersecurity solutions, designed to safeguard digital infrastructures, protect sensitive information, and ensure uninterrupted production in increasingly connected environments.

Software innovation will also be a key focus, with new enhancements to the Maestro 3D module for nesting machining centres. These upgrades allow users to generate complete machining operations with a single click, drastically reducing programming time. When combined with an advanced nesting optimisation algorithm, the system enables direct import of 3D cabinet designs without pre-programming, resulting in improved material utilisation and reduced waste.

SCM's offering at the exhibition will

extend further to include solutions for advanced joinery, such as the “blade off” safety system integrated into circular saws. This intelligent mechanism enhances operator safety through rapid detection and automatic blade retraction, reflecting SCM’s commitment to both productivity and workplace protection.

Visitors to the stand will also have access to the Group’s broader portfolio, encompassing technologies for furniture manufacturing, windows and doors, timber construction, and surface treatment. In addition, SCM Engineering will showcase integrated automation systems and robotics developed by Tecno Logica, designed to support high-volume production in complex and variable environments.

Through this comprehensive presentation, SCM aims to deliver more than a display of products, it seeks to offer a tangible vision of the future of woodworking. By combining advanced machinery with intelligent software and digital services, the company is enabling manufacturers to



navigate evolving market demands with agility and confidence.

As global competition intensifies and production models continue to evolve, SCM’s presence at Xylexpo 2026 underlines its commitment to building long-term partnerships rooted in innovation, efficiency, and value creation. The exhibition will serve as a platform not only to showcase technological advancements but also to engage with industry stakeholders, exchange insights, and shape the next phase of digital transformation in the wood sector.

With its integrated approach and forward-looking solutions, SCM is set to leave a strong imprint at Xylexpo 2026, reinforcing its position as a key driver of progress in the global woodworking industry.

ग्रीनप्लाई

अनुपालन और प्रीमियमकरण पर फोकस, अगले ग्रोथ चक्र को गति देगा

Greenply Industries Ltd भारत के वुड पैनेल उद्योग के अधिक संगठित और नियम-आधारित ढांचे की ओर बढ़ने के साथ, अपनी विकास रणनीति को अनुपालन, क्षमता विस्तार और प्रीमियमकरण के इर्द-गिर्द फिर से संतुलित कर रही है। एक बातचीत में Manoj Tulsian ने बताया कि बदलते मांग पैटर्न और नीतिगत बदलाव कंपनी की प्राथमिकताओं को कैसे पुनर्परिभाषित कर रहे हैं।

एक प्रमुख कारक क्षमता उपयोग में सुधार कर रहा है, खासकर मीडियम-डेंसिटी फाइबरबोर्ड (MDF) सेगमेंट में। कंपनी ने वडोदरा स्थित अपनी इकाई की क्षमता को मौजूदा ढांचे के भीतर 25% बढ़ाकर 1,000 घन मीटर प्रतिदिन कर दिया है। वित्त वर्ष 2026 की तीसरी तिमाही तक उपयोग लगभग 71% रहा, और आने वाले वर्ष में पूर्ण क्षमता हासिल होने की उम्मीद है। दक्षता में सुधार लागत अनुकूलन उपायों से समर्थित रहा है, जिनमें ईंधन के रूप में कृषि इको-वेस्ट का उपयोग, संरचित पावर एग्रीमेंट्स, और दीर्घकालिक अनुबंधों के माध्यम से सुव्यवस्थित लॉजिस्टिक्स शामिल हैं। साथ ही, उत्पाद मिश्रण वैल्यू-एडेड MDF उत्पादों और मास-प्रीमियम Ecotec ब्रांड की ओर शिफ्ट हो रहा है।

हालांकि, मांग में सुधार अभी भी असमान है। वृद्धि मुख्यतः टियर-1 और टियर-2 शहरों में केंद्रित है, जिसे संगठित हाउसिंग, वाणिज्यिक रियल एस्टेट और संस्थागत इंटीरियर प्रोजेक्ट्स से बढ़ावा मिल रहा है। फैक्ट्री-निर्मित मॉड्यूलर फर्नीचर और मानकीकृत फिट-आउट्स को तेजी से अपनाता उपभोग पैटर्न में संरचनात्मक बदलाव का संकेत देता है।

एक महत्वपूर्ण बदलाव फरवरी 2026 से अनिवार्य BIS प्रमाणन का लागू होना है, जिससे ₹30,000 - 40,000 करोड़ के प्लाईवुड बाजार के औपचारिक होने की उम्मीद है। यह नियामकीय पहल संगठित और अनुपालन करने वाली कंपनियों के पक्ष में जाएगी, जिससे ग्रीनप्लाई की प्रतिस्पर्धी स्थिति मजबूत होगी।

आगे देखते हुए, MDF विस्तार कंपनी की रणनीति का केंद्र बना हुआ है। कंपनी वित्त वर्ष 2028 तक ₹500-600 करोड़ की एक नई इकाई की योजना बना रही है, साथ ही ओडिशा में ₹600 करोड़ की एक इंटीग्रेटेड सुविधा भी स्थापित करेगी। अनुशासित पूंजी आवंटन और अनुपालन-आधारित सेगमेंट्स पर फोकस के साथ, ग्रीनप्लाई दीर्घकालिक और लाभदायक वृद्धि बनाए रखने का लक्ष्य रखती है।

PLY GAZETTE

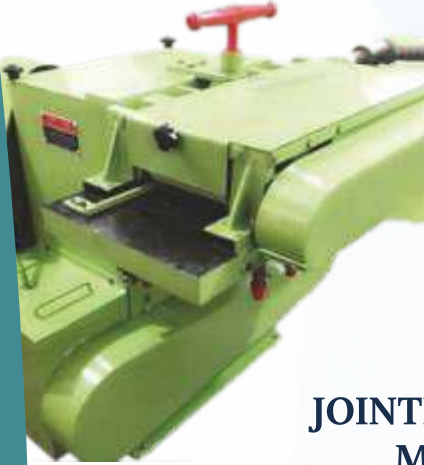
MONTHLY REPORT ON THE INDIAN PANEL AND SURFACE INDUSTRY



ENGINEERING WORKS

VIRDI ENGINEERING WORKS NEW DELHI

RIPSAW



D.D. SAW MACHINE



**GLUE SPREADER
(56" 42" 36")**

**JOINTER & FINGER
MACHINE**



**THICKNESS
PLANNER**



**SEASONING
CHAMBER**



COOLING FAN

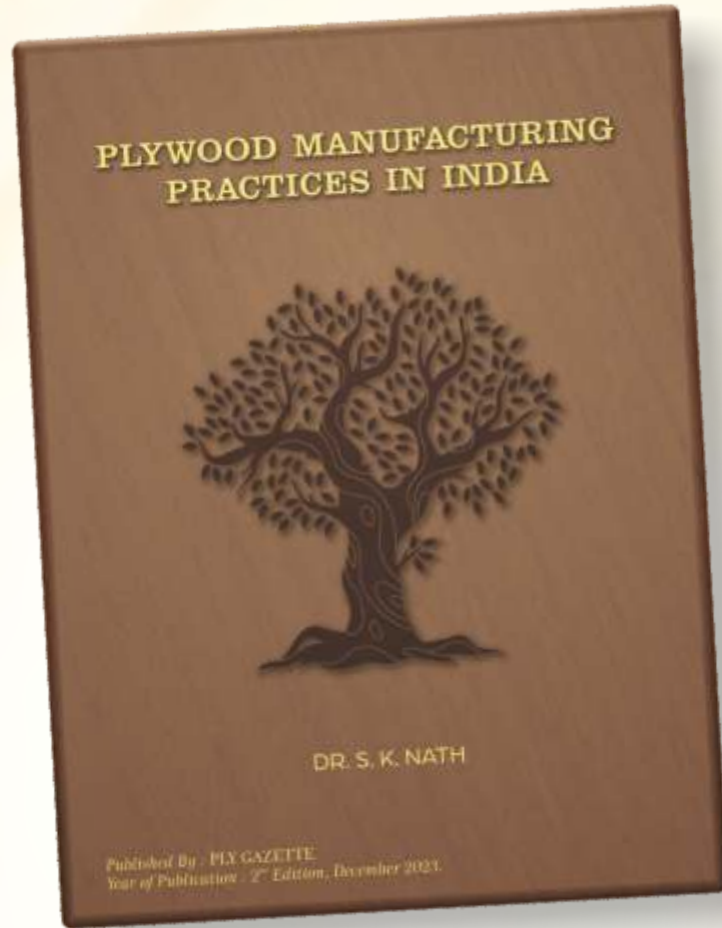


GLUE MIXER 400 Kg

Manufactures of All Kind of Plywood Machinery

☎ +91 9811357200, +91 9289236323 ✉ Hardeepsingh3383@gmail.com

To Buy
PLYWOOD MANUFACTURING PRACTICES IN INDIA
S.K. Nath Book



SCAN THE QR CODE



Rs. 1200.00 (Twelve Hundred Only) include shipping

PEELPRO



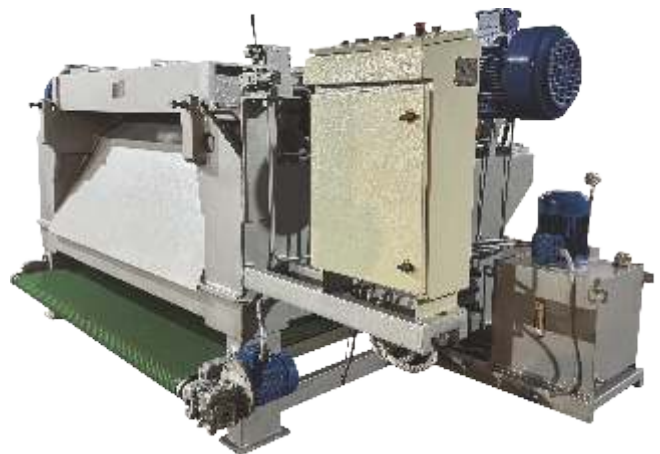
Spindle Log Peeling Machine
Model : SPM-56



Log Debarker Machine
Model : DM-56/59



Spindle-Less Log Peeling Machine
Model : SLM/125-16
SLM/125-25



Log Debarker Machine
Model : RMC-56/59

SHREE BALAJI INDUSTRIES

AN ISO 9001:2015 CERTIFIED COMPANY

Radaur Road, Mamidi, Near Haryana Dharam Kanta, Yamuna Nagar - 135001 (Haryana), India

☎ +91 97288-00079, +91 70159-33687 ✉ sbalajiind33@gmail.com

LARGEST SUPPLIER OF WIDE BELT SANDER IN INDIA

TOP & BOTTOM SURFACE SANDING LINE (CONSTANT SANDING LINE)



**FOUR HEAD
TOP & BOTTOM SURFACE
WIDE BELT SANDER**



**THREE HEAD TOP SURFACE
SANDER CUM CALIBRATOR**



**TOP & BOTTOM
SURFACE CALIBRATOR
(HEAVY DUTY)**



**FOUR HEAD
TOP & BOTTOM
SURFACE CALIBRATOR**

**TOP & BOTTOM SURFACE
BRUSH SANDER**



**TOP SURFACE
HEVY DUTY
CALIBRATOR**



Jagadhri Road, Yamuna Nagar - 135 001 (Haryana) INDIA
 Tel.: +91 - (1732)-223694, 260682, Fax : + 91-(1732) 260203
 Website: www.kalyanindustries.in, E-mail: info@kalyanindustries.com

1st COMPOSER INSTALLED IN 2006 & STILL SATISFACTORILY WORKING

Yet another innovative product from KALYAN

FINGER JOINT L TYPE PANEL COMPOSER



**FULLY AUTOMATIC CORE COMPOSER
(Machine Made in Single Frame)**



GLUE SPREADER 8'



ZIG ZAG SPLICER

























**SHORT VENEER CORE/
FALI COMPOSER**



Jagadhri Road, Yamuna Nagar - 135 001 (Haryana) INDIA
Tel.: +91 - (1732)-223694, 260682, Fax : + 91-(1732) 260203
E-mail: info@kalyanindustries.com, Website: www.kalyanindustries.in

BRAND INDEX

	BHUTAN TUFF	FP
BLACK COBRA®	BLACK COBRA	GF - F
	GURU AMAR INDUSTRY LIMITED	FI
	VIRGO	05
	AVI	06
	VIDYALAM	07
	VARVO	08
	MODAK	09
	WOODLINE	10 - 11
	NAIMISH PLYTECH	12
	OSWAL LAMINATES	13
	SAFELAM	15
	S.S. STEEL CRAFT	16
	BHARAT DECORATIVE	17
	AMULYA MICA	18
	MATCH GRAPHICS	19
	JAGDAMBA	20
	BONANZLAM	21
	TAJPURIA	22 - 23
	SAGAR WOOD PRODUCT	24
	KRIDHA	25

	RIYOM	27
	KUMAR ENGINEERING	29
	GOLDEN PLYWOOD	31
	AMRIT LAMINATES	33
	SHYAM LAMINATES	35
	JAI MATA PLYWOOD	37
	HARISAR INDUSTRIAL CORP.	39
	VIRAT	40
	VIMBA INDUSTRIES	41
	KALYAN	42
	METRO PLYWOOD	43
	ROYAL DECOR	44
	ASHUTOSH INDUSTRIES	45
	SLEEK BOARD	47
	WOODSTOCK	49
	R.D. WOOD PRODUCT	51
	VIRDI ENGINEERING WORKS	95
	PLYWOOD MANUFACTURING PRACTICES IN INDIA	96
	SHREE BALAJI INDUSTRIES	97
	KALYAN	98 - 99
	BHARAT BUILDCON	BI
	WINTUFF	GF - B
	RUSHIL DECOR	BP



वाणिज्य एवं
उद्योग मंत्रालय
MINISTRY OF
COMMERCE
AND INDUSTRY



SUPPORTED BY
Government of India
Ministry of Housing
and Urban Affairs

Visit India's Premium PLYWOOD & BUILDING MATERIALS EXHIBITION

Bharat Buildcon 2026 is being
strategically rescheduled.

~~April 29 – May 2, 2026~~

New Date :

18 - 21 June 2026

Venue :

Yashobhoomi, New Delhi

Scan now to
register your visit



DIAMOND SPONSORS



PLATINUM SPONSOR



GOLD SPONSOR



+91 72030 40408/09 www.bharatbuildcon.com



PRODUCT RANGE

Prelaminated Plywood • Laminated Particle Board

Laminated MDF • Plain Plywood

Recon Face (.18 to .8) • Membrane Plywood • MDF

Flush Door • Calibrated Plywood

Membrane Shutters for Wardrobes

Shuttering Plywood (23kg,30kg,32kg,34kg)

E1 GRADE PARTICLE BOARD AND PLYWOOD



V. P. O. Dhogri, Pathankot Road, Dist. Jalandhar, Punjab.
Mo. : +91 86200 00002, 98149 78666 | Ph. : 0181 - 2993777
www.wintekprelams.com | E-mail : wintekprelam@gmail.com

Innovative &
Awesome



CREATING
TIMELESS ELEGANCE

LEAD THE WAY TOWARDS INNOVATIVE
AND CREATIVE DECOR SOLUTIONS





LAMINATE

R.N.I. DELBILO3118



RUSHIL
DECOR LIMITED

Introducing

the New Vir V-book 1mm Laminate

V-BOOK
CRAFTED COLLECTION

1MM 2026



F E A T U R E S



Scratch
Resistant



Stain
Resistant



Anti
Bacterial



Moisture
Resistant



Impact
Resistant



Ease
to Clean

44+
TEXTURES

413+
DESIGNS

Toll Free No.: 1800 233 7952 | www.virlaminate.com | info@rushil.com