

NFC

NATURAL FIBRE COMPOSITE



A DECADE OF EXPORT EXCELLENCE

Exporting PVC foam sheets, trim boards, exterior & interior mouldings worldwide for 10 years. Awarded **2nd Largest Exporter in category** by the Ministry of Commerce & Industry, Government of India — presented by Shri Piyush Goyal.

Now venturing into NFC.

**THE NEXT
GENERATION OF
ENGINEERED
PANELS**

A DECADE OF EXPORT EXCELLENCE

Proven on the export stage.

Welmon NFC is backed by a promoter team with a decade of manufacturing and export leadership in PVC foam boards, PVC trim boards and PVC mouldings. Every year from 2019–20 to 2024–25, the Plastics Export Promotion Council (PLEXCONCIL) – sponsored by the Ministry of Commerce & Industry, Government of India – has named Welmon the Second Best Exporter of PVC Foam Board/Sheets, and the DGFT has recognised the company as a One Star Export House. The same discipline in quality, consistency and on-time delivery now stands behind every NFC board.



HONOURS · SIX CONSECUTIVE YEARS OF EXPORT AWARDS



2023-24 & 2024-25
Second Best Exporter
PVC Foam Board/Sheets
PLEXCONCIL · MUMBAI, NOV 2025



VALID 2023 - 2028
One Star Export House
Certificate of Recognition
DGFT · GOVT. OF INDIA



2022-23
Second Best Exporter
PVC Foam Board/Sheets
PLEXCONCIL · MUMBAI, JUN 2024



2021-22
Second Best Exporter
PVC Foam Board/Sheets
PLEXCONCIL · MUMBAI, JUN 2024



2020-21
Second Best Exporter
PVC Foam Board/Sheets
PLEXCONCIL · MUMBAI, APR 2022



2019-20
Second Best Exporter
PVC Foam Board/Sheets
PLEXCONCIL · MUMBAI, APR 2022

Built on a decade of export leadership.

For ten years, Welmon has manufactured and exported PVC foam boards, PVC trim boards and PVC mouldings from Morbi, Gujarat — a track record recognised with the 2nd Largest Exporter award in its category from the Ministry of Commerce & Industry, Government of India, presented by Shri Piyush Goyal. NFC builds directly on that experience in continuous extrusion.

10

Years of manufacturing and exporting from India

2nd

Largest exporter in category — Ministry of Commerce & Industry

Morbi

Gujarat, India — our own manufacturing unit

INTRODUCING NFC

NFC combines the versatility of engineered composites with the performance potential of natural fibres — a new generation of boards for a changing world.

Welmon NFC is an engineered board made by extruding a compound of natural fibres, PVC resin, minerals and processing additives into a dense, homogeneous panel. It is designed to be cut, fixed and finished like wood, while resisting water, termites and decay.

Natural fibre + polymer

Continuous extrusion

Homogeneous structure

Works like wood



Natural fibres, engineered into one matrix.

01

Natural fibre

Agricultural fibres such as rice husk, dried and graded to a controlled size.

02

PVC resin

The thermoplastic binder that encapsulates every fibre.

03

Mineral filler

Adds density, stiffness and dimensional stability.

04

Additives

Coupling agents, heat stabilisers and processing aids.

BOARD CROSS-SECTION • ILLUSTRATIVE



Upper face: smooth or sanded skin

Supplied with a smooth skin or a sanded skin — ready for laminate, veneer, paint, print and stain.

Homogeneous fibre–polymer body

One uniform structure from face to face — no separate surface layer, no plies, no glue lines, no core voids.

Lower face: smooth or sanded skin

The same two finish options as the upper face.

Nothing to delaminate

One extruded body instead of bonded layers.

Edges like the face

Edges machine, fasten and finish like the surface.

Fix anywhere

Consistent screw holding across face and edge.

ENGINEERED FOR THE DEMANDS OF TOMORROW

Nine properties NFC is designed around — each tied to a recognised test method.



Water-resistant

Polymer-encapsulated fibres designed for very low water absorption and swelling.

IS 2380 · ASTM D570



Termite & borer resistant

Designed to resist termite, borer and fungal attack — no wood for pests to feed on.

IS 4833 · IS 4873



Fire-retardant formulation

Self-extinguishing behaviour targeted, for safer interiors.

UL 94 · ASTM E84 · EN 13501-1



Dimensionally stable

A homogeneous extruded body that holds its size through humidity changes.

IS 2380 · EN 15534-1



Strong screw holding

Fibre-reinforced matrix for secure fixing on face and edge.

IS 2380 screw withdrawal



Works like wood

Cut, drill, route, nail and screw with standard carpentry and CNC tools.

See workability, p. 09



Thermoformable

Heat-shaped into curves for furniture, panels and design features.

See guidelines, p. 10



Finish-ready surface

Accepts laminate, veneer, paint, digital print and edge-banding.

Smooth, closed skin



Responsible formulation

Lead-free stabiliser system and no formaldehyde-based binders targeted.

IEC 62321 · EN 717-1

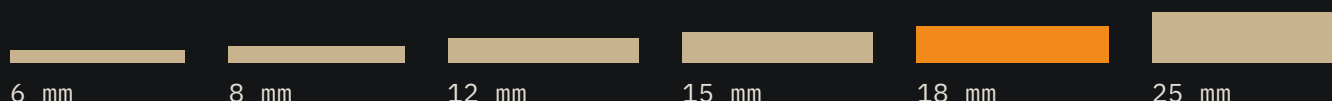
Properties are design targets for the NFC board and are subject to accredited laboratory testing. Performance depends on thickness, finishing and installation.



One board. Six thicknesses.

Extruded in a continuous process and cut to length — custom lengths on request.

THICKNESS PROGRAMME



Standard size 2440 × 1220 mm

Imperial 8 × 4 ft

Grades NFC650 / NFC750

Structure Homogeneous, extruded

Surface Smooth or sanded, both faces

Colour Natural fibre beige

Custom lengths On request

Finishing On request

NFC BOARD • TECHNICAL DATA

Measured like a composite.

DENSITY	WATER ABS. • 24 H	SCREW WITHDRAWAL	FLEXURAL STRENGTH
650 / 750	0.66%	1,833 N	19.9 MPa
kg/m ³ • NFC650 / NFC750	NFC650 • ASTM D570	NFC650 • ASTM D1037	NFC650 • ASTM D790
PROPERTY	TEST METHOD	NFC650	NFC750
PHYSICAL			
Density	ASTM D792	650 kg/m ³	750 kg/m ³
Water absorption, 24 h	ASTM D570	0.66%	0.55%
Shore D hardness	ASTM D2240	75	77
MECHANICAL			
Flexural strength	ASTM D790 • Proc. A	19.9 MPa	22.5 MPa
Flexural modulus	ASTM D790 • Proc. A	1,289 MPa	1,500 MPa
Tensile strength	ASTM D638	12.06 MPa	13.7 MPa
Tensile modulus	ASTM D638	839 MPa	980 MPa
Elongation at break	ASTM D638	16.0%	15.0%
Charpy impact strength	ASTM D6110	28.5 J/m	31.0 J/m
Falling weight impact (height / energy)	ASTM D5420	152.5 mm / 2.7 J	160 mm / 2.9 J
Screw holding capacity	1/6 wood screw	625 N	710 N
Screw bonding capacity	Plate to plate	221 N	250 N
Direct screw withdrawal	ASTM D1037 • Sec. 16	1,833 N	2,080 N
THERMAL			
Heat deflection temperature	ASTM D648	51.8 °C	52.5 °C
Thermal stability	80 °C / 60 min	No effect	No effect
Thermal conductivity	ASTM C177	0.098 W/m·K	0.106 W/m·K
Thermal resistance	ASTM C177	0.184 m ² K/W	0.171 m ² K/W
FIRE & HEALTH			
Flammability (time / extent of burning)	Self-extinguishing	<5 s / <5 mm	<5 s / <5 mm
Dripping test	NF P92-505	Passed	Passed
Lead & cadmium	—	100% free	100% free

TWO GRADES • NFC650 & NFC750 • BOTH 100% LEAD-FREE & CADMIUM-FREE

Made for the spaces people live in.



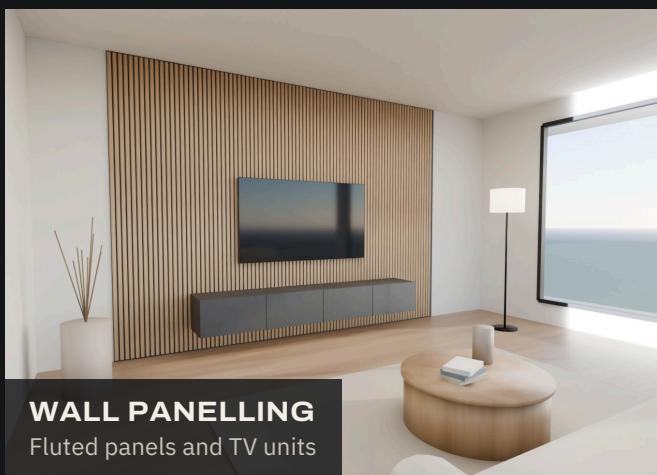
MODULAR KITCHENS

Carcasses, shutters, drawers and islands



WARDROBES

Carcasses, shelves and shutters



WALL PANELLING

Fluted panels and TV units



BATHROOMS & WET AREAS

Vanities and shelving in humid zones

Furniture

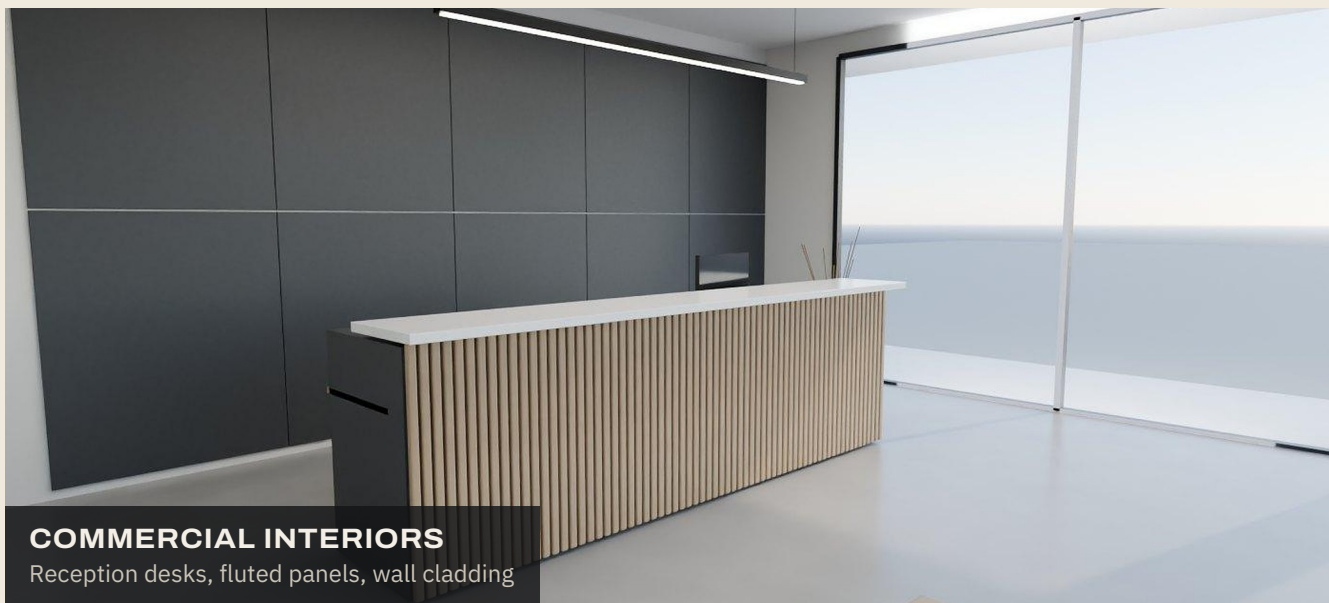
Cabinets

Doors & frames

Partitions

Ceilings

For work, retail and the outdoors.



COMMERCIAL INTERIORS

Reception desks, fluted panels, wall cladding



SEMI-OUTDOOR & OUTDOOR

Finished cladding, pergolas, benches and decks

Office & workspace

Workstations, storage, meeting tables

Retail & display

Shop fittings, fixtures, exhibition stands

Hospitality

Hotel furniture, counters, wet-area units

Signage & print

Digitally printed and CNC-cut panels

Healthcare & education

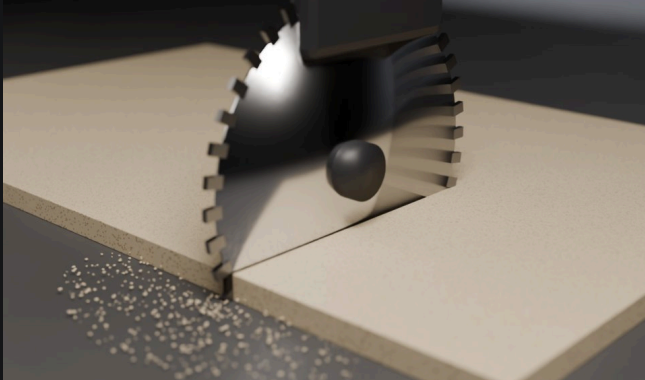
Cabinets and panels in high-humidity rooms

Future: mobility

Lightweight interior panels — under development

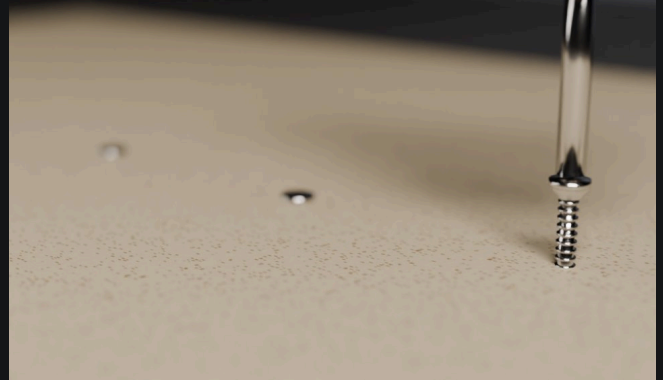
Handles like wood. Performs like a composite.

Standard woodworking tools, carpenters' skills and CNC programs carry straight over.



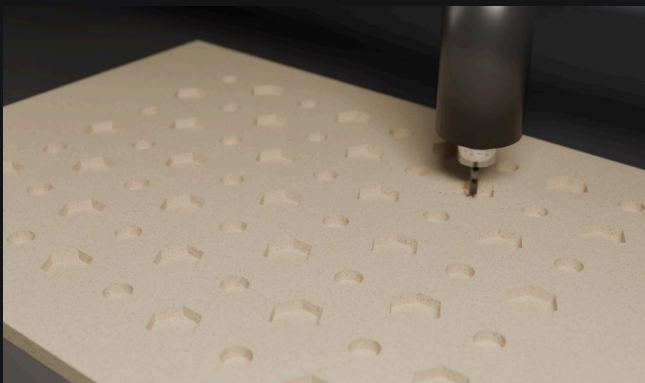
01 CUT & TRIM

Panel saws, circular saws and jigsaws with carbide-tipped blades give clean, chip-free edges.



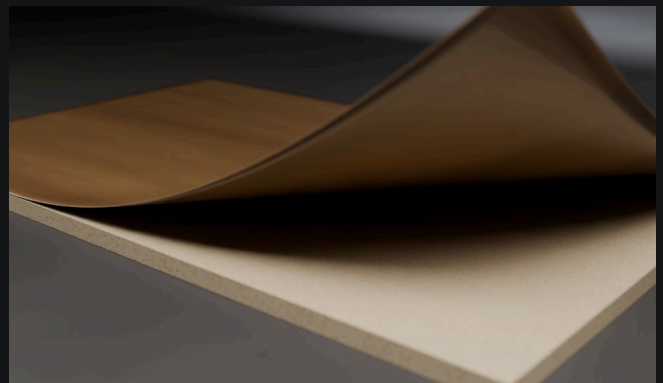
02 SCREW, NAIL & DRILL

Fix on face or edge with standard fasteners and hardware; pre-drill close to edges.



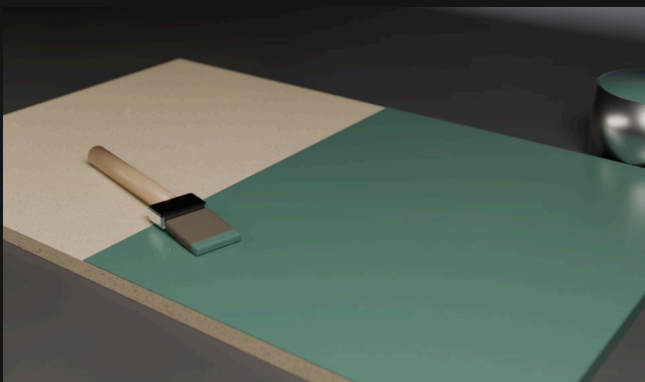
03 CNC ROUTE & CARVE

Uniform density allows crisp jaali, fluting, grooves and engraving.



04 LAMINATE & VENEER

Bond decorative laminates, veneers and edge-bands to the smooth, closed surface.



05 PAINT, PRINT & STAIN

Takes paint, PU and digital UV print after light sanding and priming. Also stainable, for a natural timber look.



06 THERMOFORM

Heat and shape over a mould for curved furniture and design panels.

Working with NFC.

General guidance for fabricators and installers. Always run a trial with your own tools, adhesives and finishes.

01 CUTTING & MACHINING

- Use carbide-tipped saw blades and router bits, as for hardwood.
- High spindle speed with a steady feed avoids heat build-up.
- Use dust extraction; edges can be sanded smooth.

03 BONDING

- PU / PUR and contact adhesives suited to PVC-based composites.
- Surfaces must be clean, dry and dust-free.
- Follow the adhesive maker's open and press times.

05 PAINTING & PRINTING

- Lightly sand and prime before paint or PU coatings.
- Flatbed UV printers print directly on the dust-free surface.
- A clear topcoat protects printed areas from abrasion.

07 INSTALLATION

- Leave a 3–5 mm expansion gap at walls, floors and ceilings.
- Use frames or stiffeners on large spans, tall shutters and sliding doors.
- In wet areas, seal cut edges and screw holes.

02 FASTENING

- Countersunk, fully threaded screws give the best hold.
- Pre-drill pilot holes near edges and ends.
- Gluing the joint adds strength; stainless fasteners for humid areas.

04 LAMINATING & EDGING

- Laminate both faces of shutters and doors to keep them balanced and flat.
- Seal all edges with edge-band or lipping.
- Fix shutters only after facing and edging are complete.

06 THERMOFORMING

Heating temperature	140–160 °C
Heating time	≈1–2 min per mm
Forming	Over a mould, held until cool
Machining	After forming

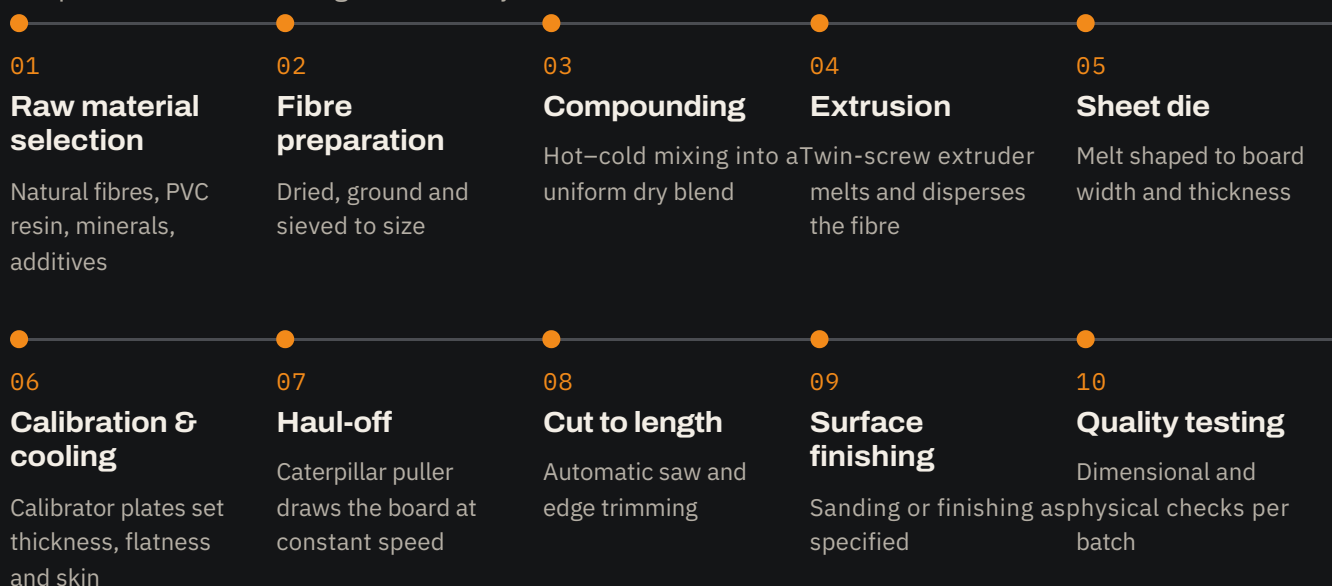
08 STORAGE & HANDLING

- Store flat on a level pallet, indoors and out of direct sun.
- Lift sheets — don't drag them — and carry on edge.
- Keep protective covers on until fabrication.

NOTE Values are indicative starting points and vary with thickness, equipment and site conditions. Contact Welmon for application-specific advice.

One continuous line, from fibre to board.

NFC is extruded — the same continuous, temperature-controlled process behind our PVC sheets — not pressed from mats or glued from layers.



OUTPUT

WELMON NFC BOARD

Homogeneous, calibrated, ready to fabricate.

Continuous

Steady output with consistent properties from board to board.

Calibrated

Thickness and flatness set on the line, not sanded in later.

Cut to order

Length is set by the saw — custom lengths on request.

QUALITY BY DESIGN

Every NFC board is designed around measurable performance — from raw fibre preparation to finished-board validation.

14 TEST PARAMETERS

Density	ASTM D792	Thickness & flatness	In-line
Water absorption	IS 2380 · D570	Thickness swelling	IS 2380
Flexural strength	ASTM D790	Flexural modulus	ASTM D790
Screw withdrawal	IS 2380	Tensile strength	ASTM D638
Impact strength	ASTM D6110	Heat deflection	ASTM D648
Termite resistance	IS 4833	Fungal & borer resistance	IS 4873
Fire behaviour	UL 94 · ASTM E84	Lead & heavy metals	IEC 62321

VALIDATION PATHWAY

01 Formulation Fibre, resin and additive ratios set per board	02 In-process QC Temperature, thickness and density on the line	03 Accredited testing Independent laboratory verification	04 Market certification Destination-specific conformity
---	---	---	---

Please confirm current test status with Welmon before specifying for a project.



From field residue to finished board.

NFC gives agricultural fibres — often burnt or discarded after harvest — a second life inside a durable board. Its environmental profile is something we intend to measure and verify, not assume.

DESIGNED WITH INTENT

Agricultural fibre, put to use

Husk and plant fibres from farm residue form the fibre phase of the board.

No timber in the board

The board contains no wood veneers or plies.

Built to last

Water and termite resistance targets aim at longer service life.

Offcuts back into the line

A thermoplastic matrix lets production offcuts be reused as regrind.

HOW IT WILL BE VERIFIED

Lead & heavy metals

IEC 62321

SUBJECT TO TESTING

Formaldehyde
emission

EN 717-1

SUBJECT TO TESTING

Fibre sourcing records

Origin and supply

BY BATCH

Life-cycle assessment

LCA / EPD pathway

UNDER EVALUATION

**Engineered by Nature.
Designed for Performance.**

No sustainability percentages or carbon figures are stated until independently verified.

ONE MATERIAL PLATFORM. MULTIPLE GLOBAL MARKETS.

Built around internationally recognised test methods for natural-fibre and wood-polymer composites, with market-specific compliance pathways.



PHOTOS FROM OUR FACTORY • MORBI, GUJARAT

Extrusion, cutting, finished sheets, export pallets

INDIA

IS 2380 • IS 4833 • IS 4873

BIS as applicable

Humidity, termites, furniture & modular kitchens

EUROPE

EN 15534-1 • EN ISO 178
EN 13501-1 • REACH / RoHS

Low emissions, fire classification, documentation

USA

ASTM D7031 • D790 • D570
ASTM E84

Regulatory compliance, fire, performance

AFRICA

ISO / EN test platform
SABS • SON • KEBS as applicable

Humidity, termites, fungal resistance, durability

AUSTRALIA / NZ

AS 5637.1 (linings)
ISO methods as accepted

Moisture, durability, building compliance

RUSSIA / EAEU

EAEU (TR CU) regulations
GOST / ISO methods as accepted

Temperature variation, moisture, fire

These are reference test frameworks, not certifications held. NFC does not carry one universal global certification; conformity will be established for each destination market through accredited testing.



Export-ready from Gujarat.

Ten years of export experience, now applied to NFC. Our Morbi unit in Gujarat is within easy reach of India's west-coast port of Mundra.



Welmon-branded pallets with edge protection and strapping, loaded for export.

EXPORT PACKING CONCEPT • AGREED PER ORDER

PALLET	Wooden base sized to the 2440 × 1220 mm panel format
PROTECTION	Corner protectors on vertical edges; top cover board
STRAPPING	Multi-point strapping around each stack
LABELLING	Product, thickness, size and sheet count on every pallet
LOADING	20 ft and 40 ft containers; custom packing on request

Export enquiries

export@welmonwoodplast.in

NFC

NATURAL FIBRE COMPOSITE

**Engineered by Nature.
Designed for Performance.**

NFC represents a new approach to engineered panels — combining renewable natural-fibre resources with advanced composite engineering to create versatile, high-performance material solutions for furniture, interiors, construction and industrial applications.



GLOBAL MATERIAL PLATFORM

INDIA | EUROPE | USA | AFRICA | AUSTRALIA | RUSSIA / EAEU



MANUFACTURING UNITS AT
Welmon Woodplast Private Limited
Survey No. 667, Nr. Kishan Cotton,
Paddhari–Mitana State Highway,
At. Neknam Village, Tal.: Tankara –
363650
Dist.: Morbi (Gujarat) INDIA

PHONE
+91 97147 99522

EMAIL
export@welmonwoodplast.in
info@welmonwoodplast.in
welmonwpc@gmail.com

WEB
www.welmonwoodplast.in