

# Palm Core:

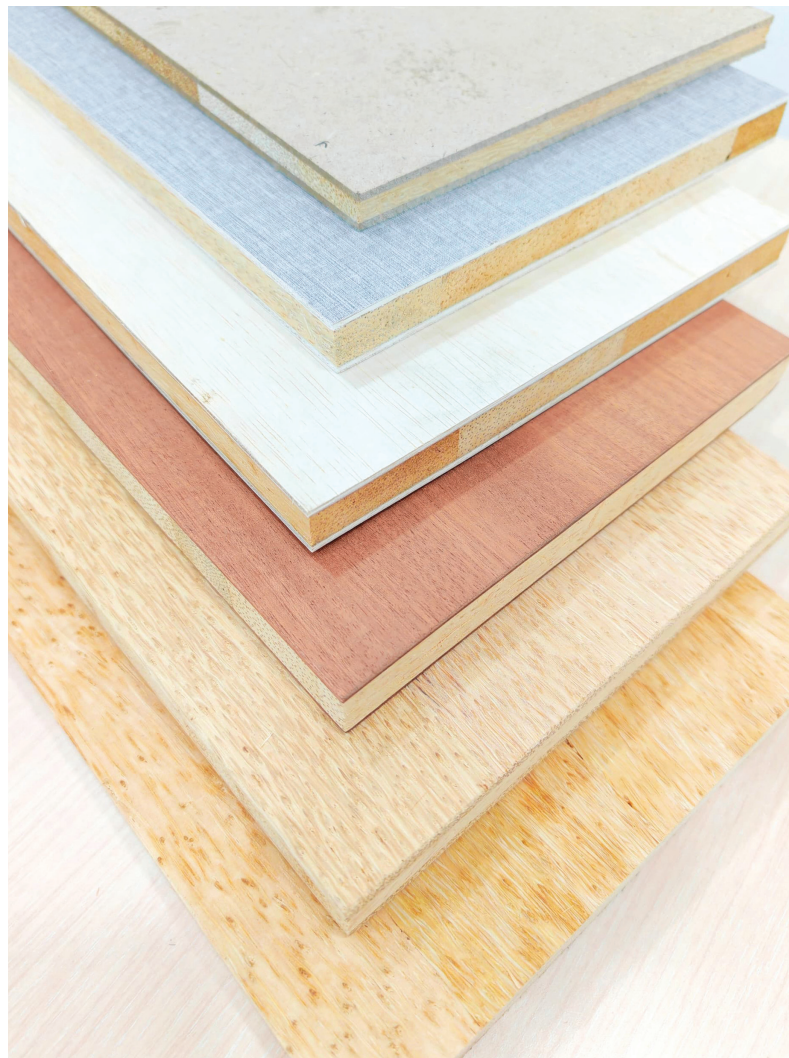
## The latest sustainable alternative to timber

As climate change intensifies and sustainable materials gain traction, IOI Palm Wood is offering Palm Core as an eco-friendly alternative to compliment traditional tropical timber in joinery and interior design. Made from the fibrous core of oil palm trees, Palm Core reduces environmental impact while showcasing unique properties inherent in palm characteristics.

Palm Core is produced from old or unproductive oil palms, that are replanted as part of regular agricultural cycles, with no deforestation required. This repurposes under-utilised biomass into a lightweight, stable, and durable material with excellent insulation properties. Applications currently include door cores, block-boards, and three-layered panels for joinery, furniture, and construction.

### A SUSTAINABLE AND CERTIFIABLE RAW MATERIAL SOURCE

A key advantage of Palm Core is that it is made from unused oil palm trunks, which typically reach the end of their productive life after 20 to 35 years and are often left to decay after replanting. Unlike timber, which can take decades to mature, oil palm trees grow relatively quickly, making Palm Core an ideal choice for sustainable manufacturing. Additionally, oil palm plantations are MSPO certified, ensuring responsible sourcing and adherence to environmental standards, giving manufacturers and consumers confidence that they are supporting sustainable practices.



*Palm core in blockboard*

### EXCELLENT STABILITY WITH LOW THICKNESS SWELL

Palm Core, with its natural grain and inherent palm characteristics, is particularly well-suited for joinery and door construction. Its excellent stability resists expansion and contraction, maintaining shape even in fluctuating environmental conditions. This makes it a durable and highly sustainable choice for fixtures and fittings.

### NO ADDED FORMALDEHYDE

Palm Core is free from added formaldehyde, a common chemical found in many traditional wood-based products. This enhances its eco-credentials and contributes to healthier indoor air quality, making it an ideal choice for consumers who prioritise sustainability and wellness in their homes and offices.

### GOOD INSULATION PROPERTIES, INCLUDING FIRE RESISTANCE

Palm Core offers both thermal and acoustic insulation benefits, along with natural fire resistance — a crucial feature for safety-conscious manufacturers and consumers. Palm Core can thus be safely used for a wide range of applications, from furniture to construction materials.

### LIGHTWEIGHT AND COMPETITIVELY PRICED

Palm Core's lightweight nature simplifies assembly, handling, and logistics while reducing the carbon footprint of manufacturing and shipping. Being lightweight, it reduces the overall carbon footprint of manufacturing and shipping. Despite these advantages, Palm Core remains competitively priced, offering long-term value and durability compared to timber.

### ADDRESSING PERCEIVED WEAKNESSES

While Palm Core offers its strengths and benefits, no material is without its perceived weaknesses. One perceived drawback is its screw-holding ability. This can be addressed with 'Conformat' (Euro)screws or the



IOI Palm Wood's logo

chemical anchoring of fittings, both of which ensure secure fastening in furniture pieces.

Furthermore, while Palm Core may initially appear pricier than traditional wood products, its sustainability and long-term value render it a cost-effective option. By engaging in discussions with customers to assess their specific needs, tailored pricing solutions can help align the material's benefits with cost-effective use.

To address concerns related to insect and fungus infestation, all Palm Core material undergo heat sterilisation, thermal modification, and a surface treatment. This process minimises the risk of borers, beetles, and termites, ensuring that Palm Core remains structurally sound for years to come.

### PARTNERING WITH OUR BUSINESS & PRODUCT DEVELOPMENT TEAM

At IOI Palm Wood, we believe that the full potential of Palm Core is best realised through collaboration. Our Business and Product Development Team is open for opportunities with internal designers, furniture manufacturers, door manufacturers, distributors, and customers to develop effective and customised solutions. We support you in material selection, pricing strategies, and

technical solutions to help bring your projects to life.

Palm Core is more than just a material — it symbolises a step towards a more sustainable, responsible and innovative manufacturing ecosystem. By choosing Palm Core, you're not only investing in high-performance materials but also contributing to the mitigation of climate change and other environmental challenges. **P**

Images: IOI Palm Wood



Inspiring the next "material revolution" by creating sustainable and high-performance materials from oil palm waste, **Peter Fitch**, together with IOI, have set up IOI Palm Wood to commercialise this untapped potential.