



DesertBoard.

PSB® PARQUET

Redefining Sustainable Elegance in Engineered Wood Flooring



DESIGN
AWARD
2025

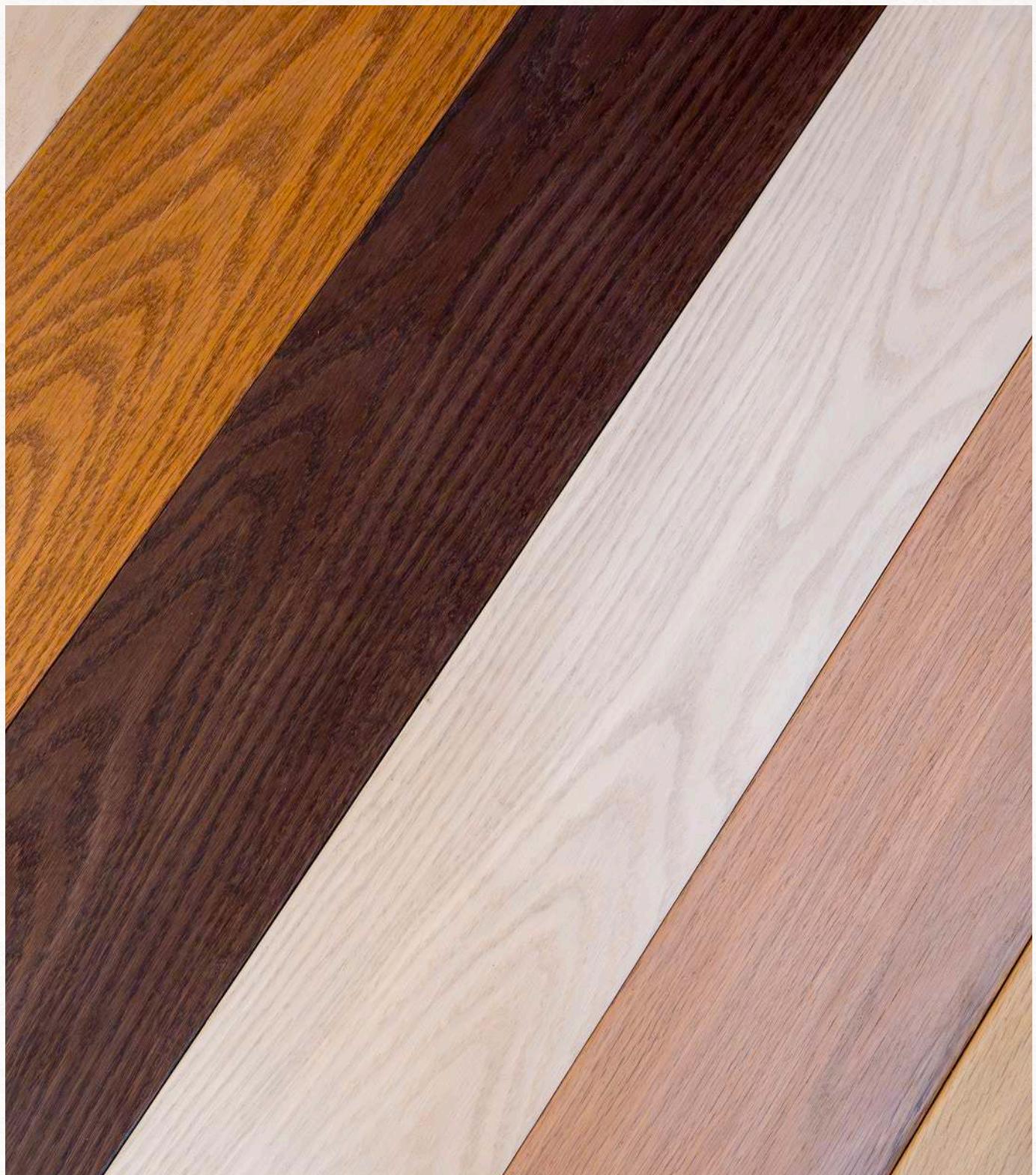


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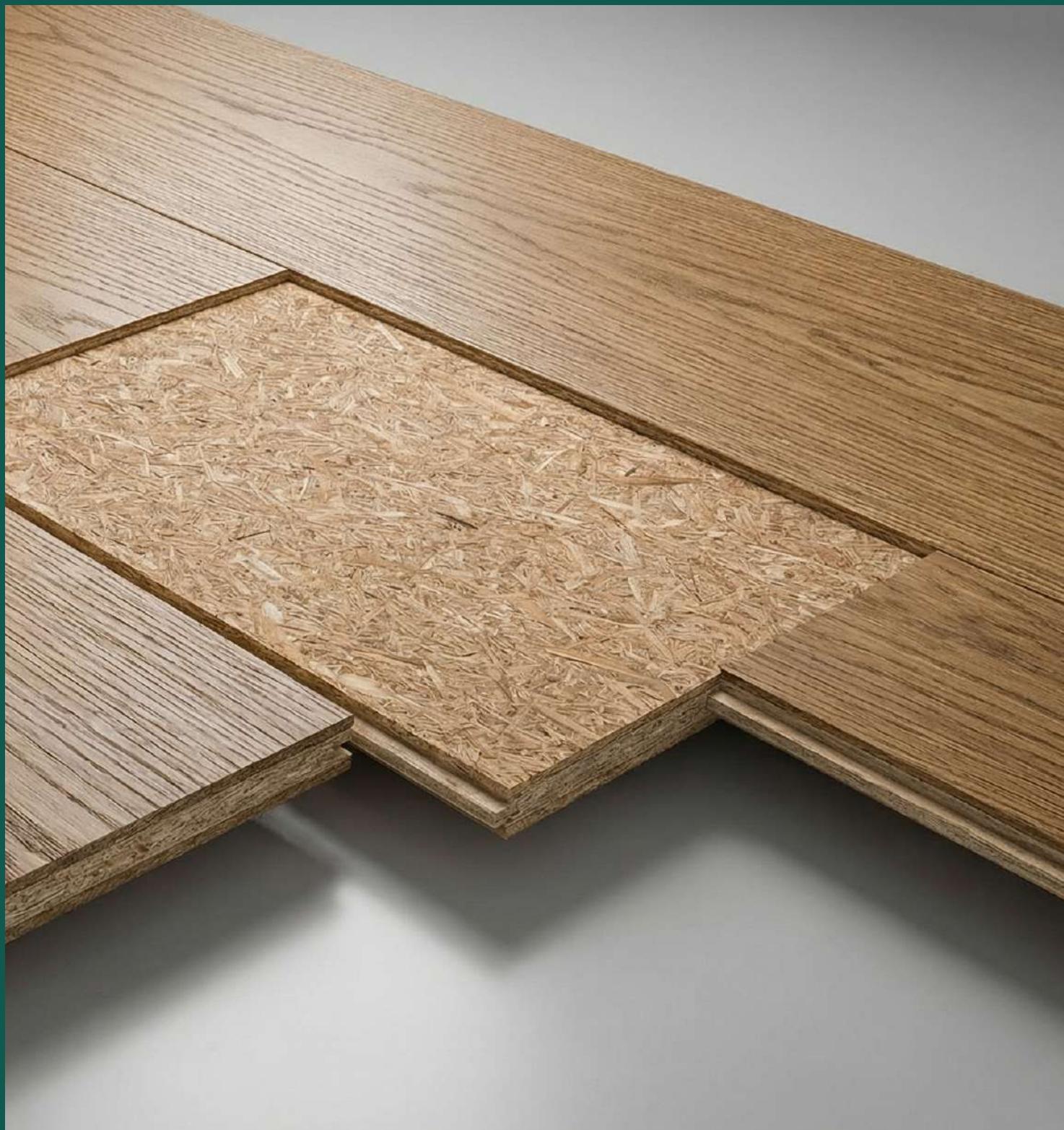
About the Company

DesertBoard® is the manufacturer of the region's most sustainable building material, Palm Strand Board (PSB®), crafted from annually regenerated date palm fronds.

Registered in 2011, DesertBoard® was driven by an ambitious vision to transform abundantly available raw materials into sustainable wooden boards. During this period, we undertook extensive experimentation, research, and development to create Palm Strand Board (PSB®), laying the foundation for a revolutionary sustainable building material.

A decade later, in 2021, DesertBoard® marked a major milestone with the inauguration of its factory and the successful production of the first PSB® engineered wooden board, setting a new standard in sustainable building materials.

Addressing a critical environmental challenge, DesertBoard upcycles pruned palm fronds through a one-of-a-kind patented process, becoming the world's first factory to produce a Super E0 (zero-emission) grade board, equivalent in strength to Oriented Strand Board 3 & Oriented Strand Board 4.



WHAT IS PSB®?

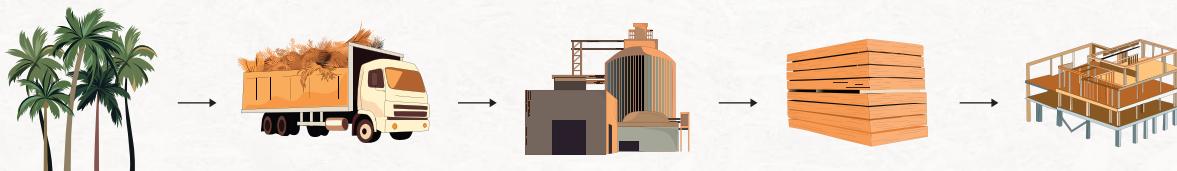
The World's First Engineered Palm-Based Board

PSB® is an engineered wooden board developed from pruned date palm fronds—a widely available and often discarded agricultural byproduct in the region.

Unlike conventional wooden boards such as OSB, MDF, and plywood that rely on deforestation, PSB® is produced without cutting down a single tree, making it a truly sustainable alternative. This homegrown innovation reflects a significant step forward in the development of eco-conscious materials within the construction and design industry.

Manufactured using a patented process, PSB® stands out for its exceptional environmental and performance features. It is 100% sustainable, contains zero formaldehyde, is highly moisture resistant, termite-resistant, acoustically insulated, versatile, offers up to 120 minutes of fire resistance, acts as a carbon sink, and contributes to biogenic carbon sequestration.

PSB® CREATION PROCESS



THE COLLECTION

Choose Your Color, Choose Your Size

Transform your space into a haven of timeless sophistication with our exquisite collection of engineered palm parquet.

Choose from a selection of rich wood tones such as Red Oak, White Oak, Cherry, Maple, Ash, Walnut, Mahogany, and Teak, tailored to complement your unique aesthetic preferences.

We recommend the following sizes and shades however this is open to customization;

210 x 15 x 1.5 cm's

180 x 15 x 1.5 cm's

120 x 15 x 1.5 cm's

90 x 15 x 1.5 cm's

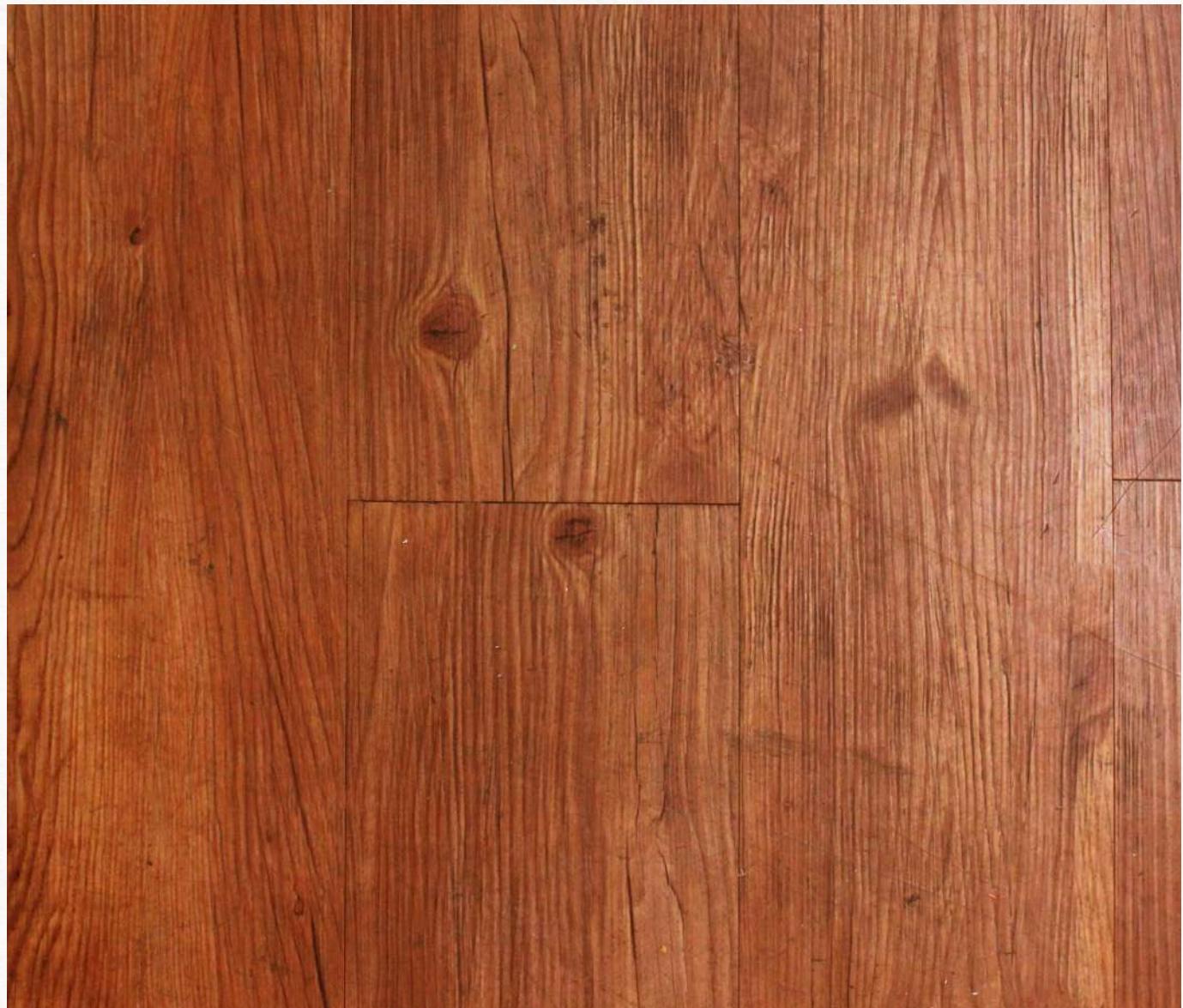
Herringbone 70 x 9 x 1.5 cm's

Chevron 45 x 7.5 x 1.5 cm's



THE COLLECTION

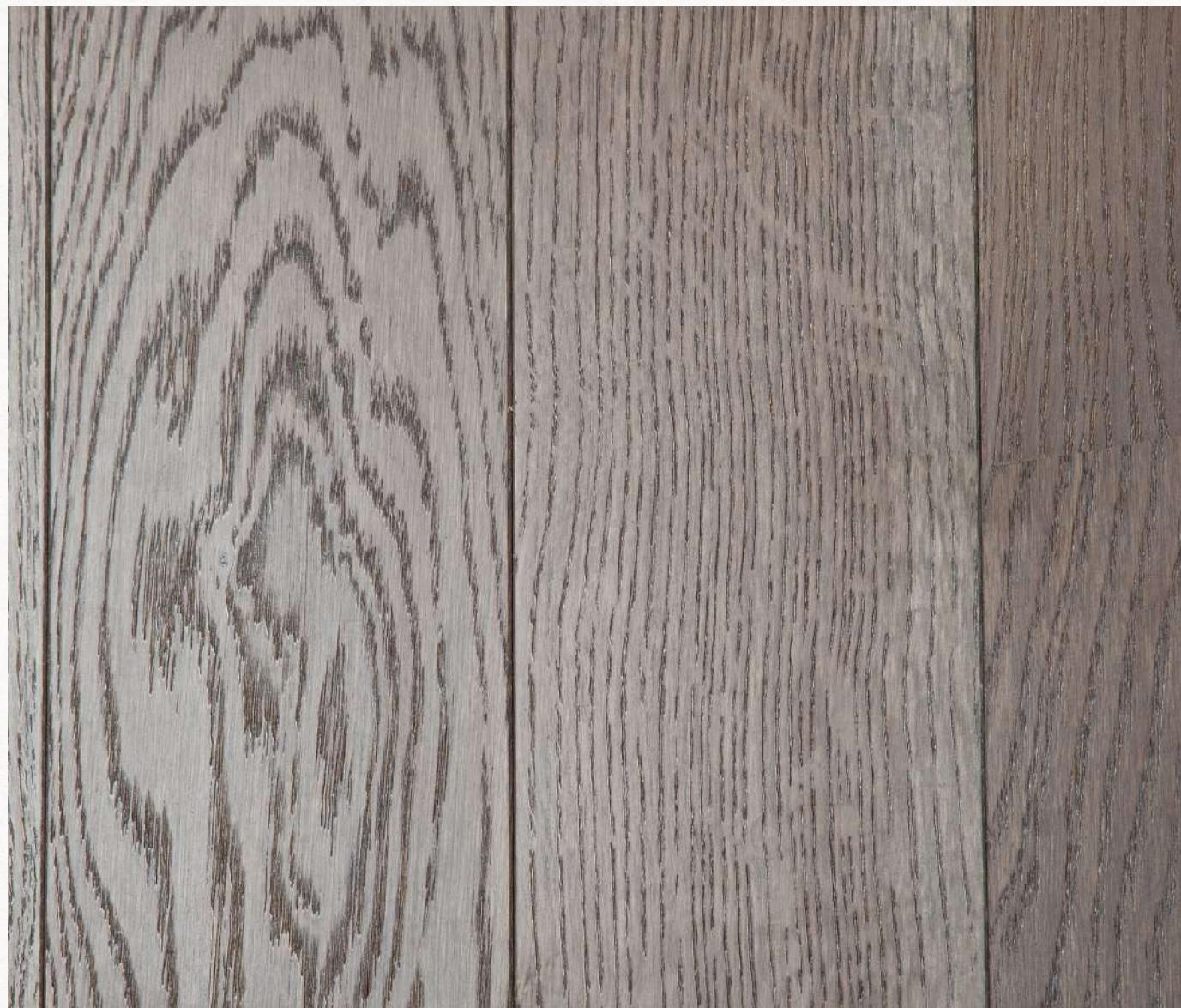
PF. 01 Chestnut | 12mm PSB® with 3mm Natural Wood Veneer





THE COLLECTION

PF. 02 Coffee | 12mm PSB® with 3mm Natural Wood Veneer





THE COLLECTION

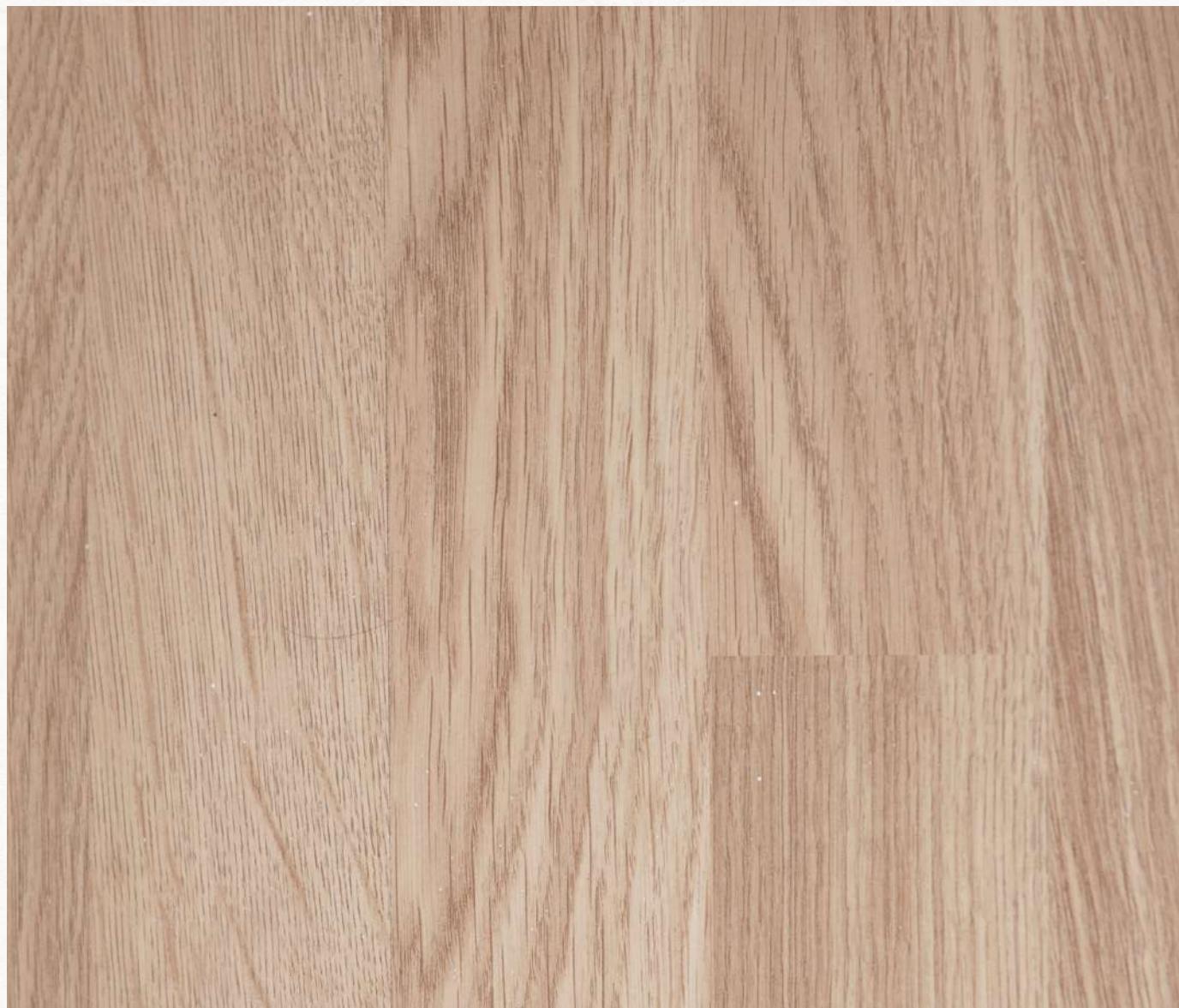
PF. 03 Vanilla | 12mm PSB® with 3mm Natural Wood Veneer





THE COLLECTION

PF. 04 Toffee | 12mm PSB® with 3mm Natural Wood Veneer





THE COLLECTION

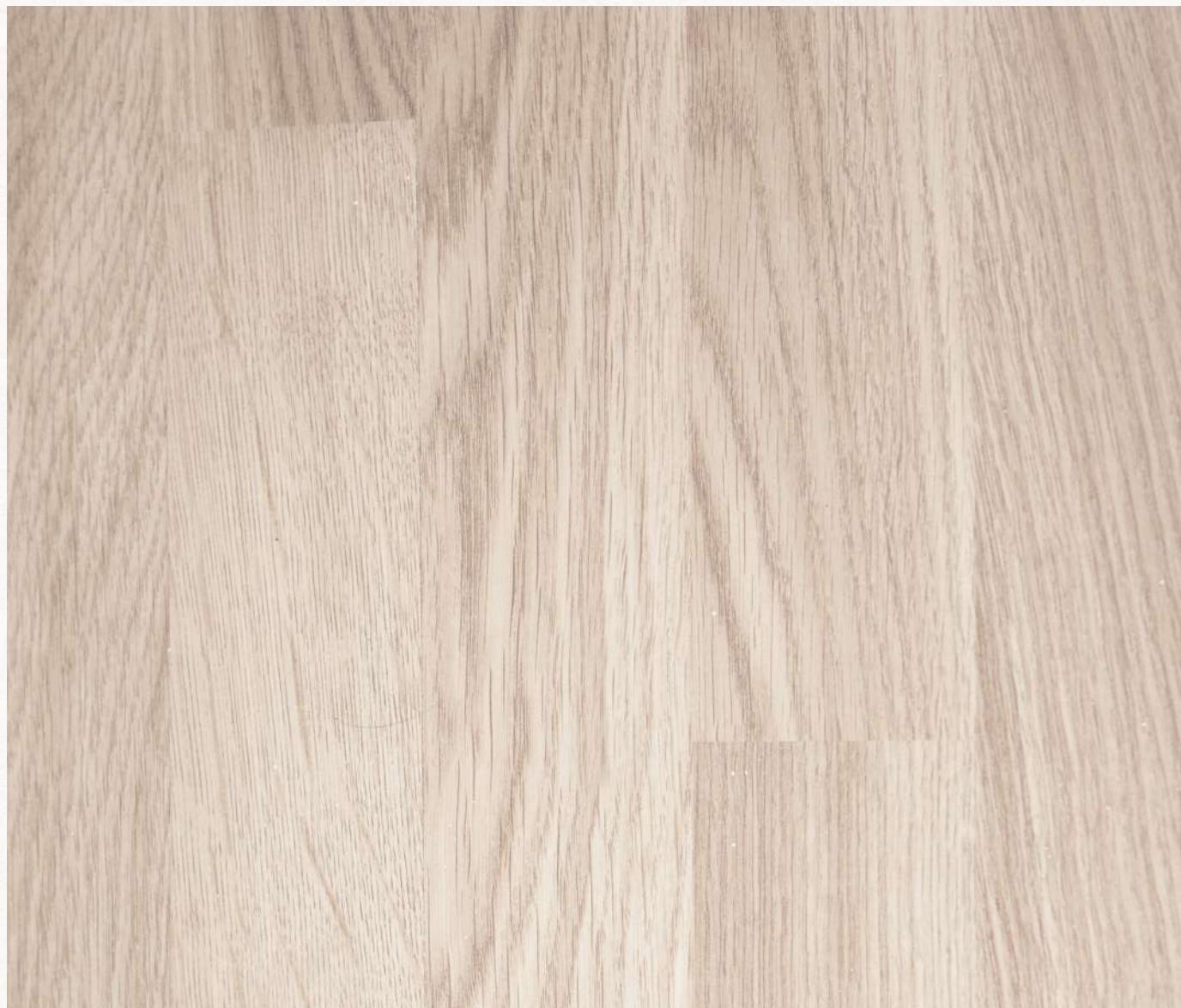
PF. 05 Blonde | 12mm PSB® with 3mm Natural Wood Veneer





THE COLLECTION

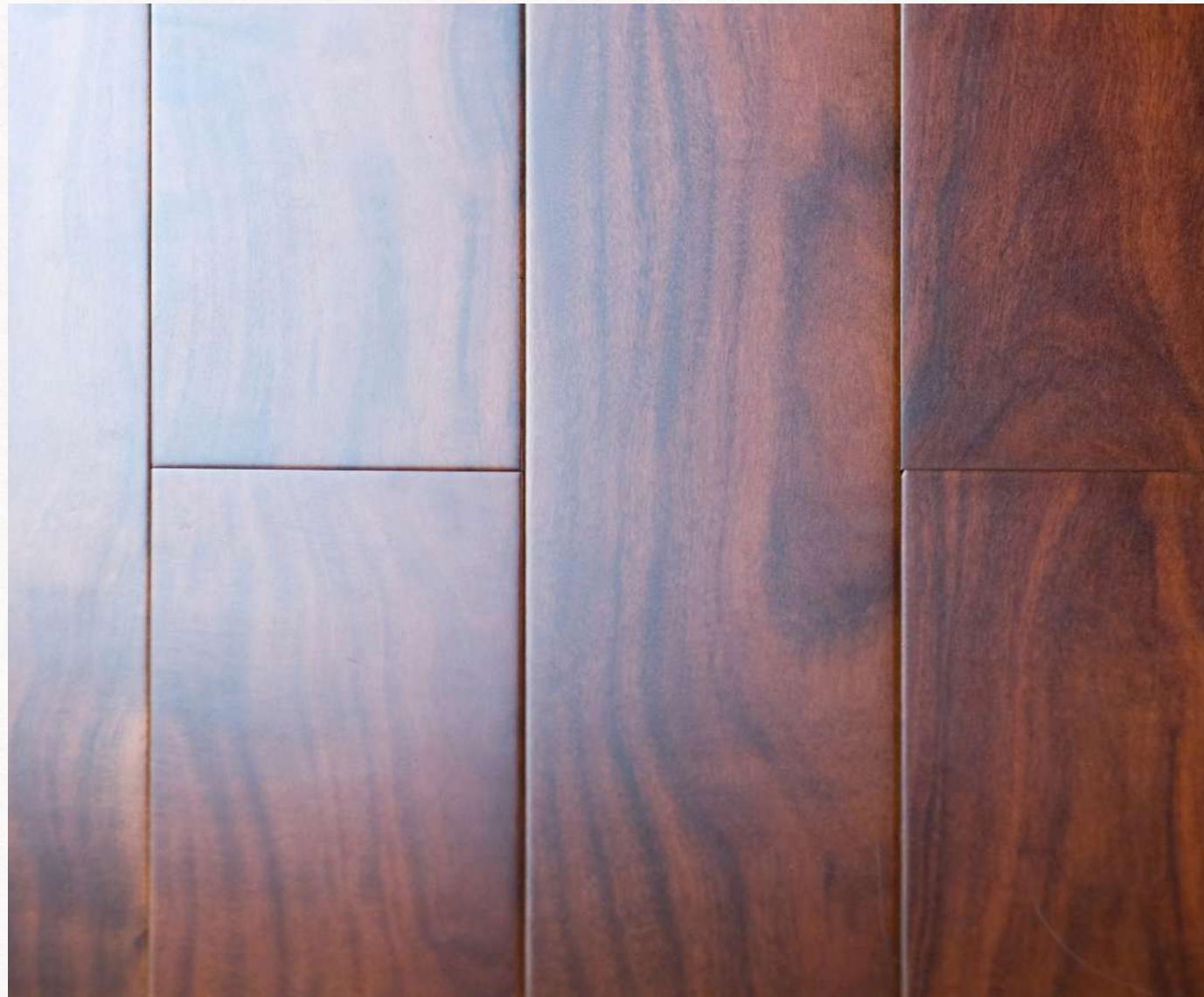
PF. 06 Hazel | 12mm PSB® with 3mm Natural Wood Veneer

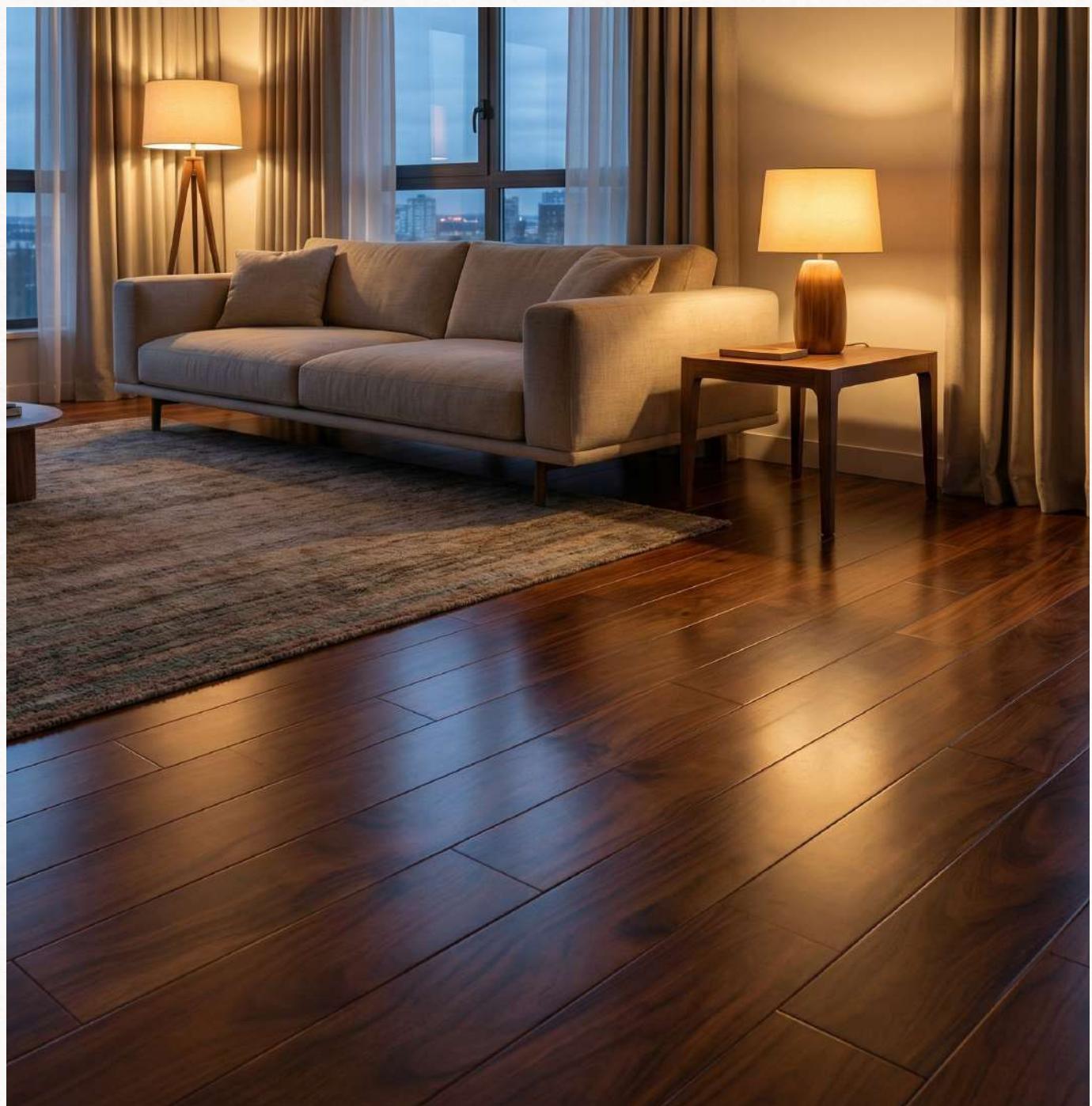




THE COLLECTION

PF. 07 Red Oak Cherry | 12mm PSB® with 3mm Natural Wood Veneer





PSB® TECHNICAL DATA SHEET

PHYSICAL PROPERTIES	TEST STANDARDS	UNIT	RESULTS
 Formaldehyde Concentration	Al Sa'fat Green Building System ASTM D5582-14	mg/L	<0.30 (E0)
 Formaldehyde Release	 EN 717-1	mg/kg mg/m³	<0.05 (E0) <0.005 (E0)
 Reaction To Fire - Surface Burning Characteristics	 ASTM E84-22	FSI SDI	Flame Spread Index (FSI) 75 (Class B) Smoke Development Index (SDI) 200
 Bending Strength	  BS EN 310	N/mm²	≥18
 Modulus Of Elasticity In Bending	  BS EN 310	N/mm²	≥3500
 Internal Bond	  BS EN 319	N/mm²	≥0.6
 Moisture Resistance (Boil Test)	 EN 1087-1	N/mm²	≥0.12
 Thickness Swell - 24 H	 EN 317	%	≤12
 Moisture Content	  BS EN 322	%	~ 5.0
 Density	  BS EN 323	Kg/m³	Up To 900
 Screws Withdrawal	  BS EN 320	N	Face: 1100 Edge: 1300

EPP TECHNICAL DATA SHEET

INDUSTRY NORMS		TEST METHOD	TYPICAL STANDARDS		PSB® PARQUET
	Moisture Content	 EN 13183-1	7% +-2%		6.73%
	Density	 ASTM D1037	>500kg/m³		>700 Kg/m³
	Total Thickness	 EN 13647	15 mm		15 mm
	Reaction to Fire	 EN1634-1	Dfl-s1		Bfl-s1
	Formaldehyde Free	 ASTM D5582-14	E1		E0
	Bending Strength	 EN 1533	NPD No Performance Declared	Avg. 98.1(N/mm²)	
	Moisture Resistant	 BS EN 1087-1 		0.181 N/mm²	
	Sound Transmission	 ASTM E90-09		dB36	

	RESISTANCE TO						
	DURABILITY	LIQUIDS	HUMIDITY	TEMPERATURE CHANGE	STAIN	ACOUSTICS	COSTS
Synthetic Composite	4/5	2/5	2/5	3/5	2/5	1/5	\$
Engineered Palm Parquet	4/5	4/5	4/5	4/5	4/5	4/5	\$\$
Solid Wood	3/5	1/5	1/5	1/5	1/5	4/5	\$\$\$\$



IF DESIGN AWARD WINNER 2025

DesertBoard has emerged as a standout winner at the esteemed Global iF Design Awards 2025 in Hamburg. Recognised for its innovation and commitment to eco-friendly solutions, DesertBoard secured four prestigious titles: Best Sustainable Building Material, Best Sustainable Building Panel, Best Sustainable Door Core, and Best Fire-Rated Sustainable Door.

The Global iF Design Awards, backed by the non-profit iF Design Foundation, celebrate groundbreaking designs that influence industries worldwide. This year, a jury of 131 design experts from 23 countries evaluated over 11,000 entries from 66 nations, selecting DesertBoard for its revolutionary approach to sustainability in construction materials.

DesertBoard's award-winning innovation, Palm Strand Board (PSB®), is redefining the construction industry by introducing the region's most sustainable alternative to traditional engineered wood boards. By repurposing pruned palm fronds, DesertBoard actively reduces methane emissions, a major contributor to climate change, while promoting a circular economy.



OUR FACILITIES

DesertBoard's Research & Development facility stands as a beacon of innovation and excellence within the industry. Below, we outline the distinctive attributes and practices that set our factory apart:

1. Commitment to Excellence and Innovation:

At DesertBoard, we prioritize rigorous testing and continual enhancement of our processes. Our unwavering commitment ensures that our products not only meet but consistently exceed industry benchmarks.

2. Using a Patented Process and Technology:

Our eco-friendly manufacturing process, powered by German Continuous Press technology and a patented method, produces 6,200 PSB® boards per day, accommodating 16 (20-foot containers) daily. After assembly, the PSB® boards' edges and surfaces are coated, laminated, painted, or finished with the compatible material to achieve a smooth surface.

3. Sustainable Manufacturing Process:

Through regular testing in our laboratories and partnerships with independent third-party testing organizations, we guarantee the utmost quality and performance of our products. Furthermore, in order to improve productivity and safeguard the Health and Safety of our employees, our plant is automated with dust extraction systems to reduce the amount of dust generated during the production process.

4. Adherence to European Standards and Sustainability Certifications:

DesertBoard's products comply with rigorous Gulf, American, European, and Asian standards and have earned certifications from globally recognized bodies dedicated to sustainability. Our affiliations with the Emirates Green Building Council (a member of the World Green Building Council), United Nations Climate Action, United Nations Climate Neutral Now and the International Code Council underscore our dedication to eco-friendly practices.

5. Innovative Energy and Waste Management:

We source our electricity from the UAE's grid, which is steadily shifting towards sustainability through the incorporation of various renewable energy sources such as solar, nuclear, wind, and hydroelectric, among others. This shift reflects our commitment to minimizing our environmental footprint. DesertBoard distinguishes itself with a unique approach that marries unparalleled quality and innovation with an unwavering dedication to environmental stewardship in its manufacturing processes.



THE PSB® RANGE

DesertBoard PSB® can be tuned with diverse performance characteristics to suit a wide range of architectural and design applications.

PSB® PRIME

Zero formaldehyde, high strength, moisture resistance, versatile, and non-load bearing board, designed for a wide range of interior applications.

PSB® SUPREME

A zero-formaldehyde, high-strength, high-moisture-resistant, high-performance board with enhanced screw-holding capacity, ideal for exterior applications.

PSB® ULTRA

Zero Formaldehyde, ultra-high moisture resistance, higher screw hold capacity, superior strength and stability, and an ideal choice for heavy-duty applications

PSB® ECOCORE SUPREME

Zero formaldehyde, high strength, high moisture resistance, specifically tailored for use in door cores or frames.

PSB® ECOCORE FR

A zero formaldehyde, high-strength, and high-moisture-resistant board, engineered with a specialized fire-retardant component and offering up to 120 minutes of fire resistance.

(Certified in accordance with EN 1634-1, BS 476, and UL 10C standards)

PSB® CONFORM

A zero-formaldehyde, high-strength, durable, and ultra-high-moisture-resistant board, designed specifically for shuttering applications.

PSB® DESIGN

Zero formaldehyde, smooth surface, moisture resistance, versatile, ideal for DIY and creative projects.



HEALTH CONCERNS WITH UREA FORMALDEHYDE & TRADITIONAL WOODEN BOARDS

Traditional wooden boards made with urea formaldehyde can pose several health concerns due to the emission of formaldehyde gas.

In contrast, zero-formaldehyde construction boards like PSB® represents a revolutionary advancement in the industry, for both workers and end-users. Here's why:

1. Improved Indoor Air Quality:

Zero-formaldehyde construction boards eliminate the emission of formaldehyde gas, leading to healthier indoor environments. This is particularly beneficial for workers who spend extended periods in construction settings, and for end-users who reside or work in buildings constructed with these boards.

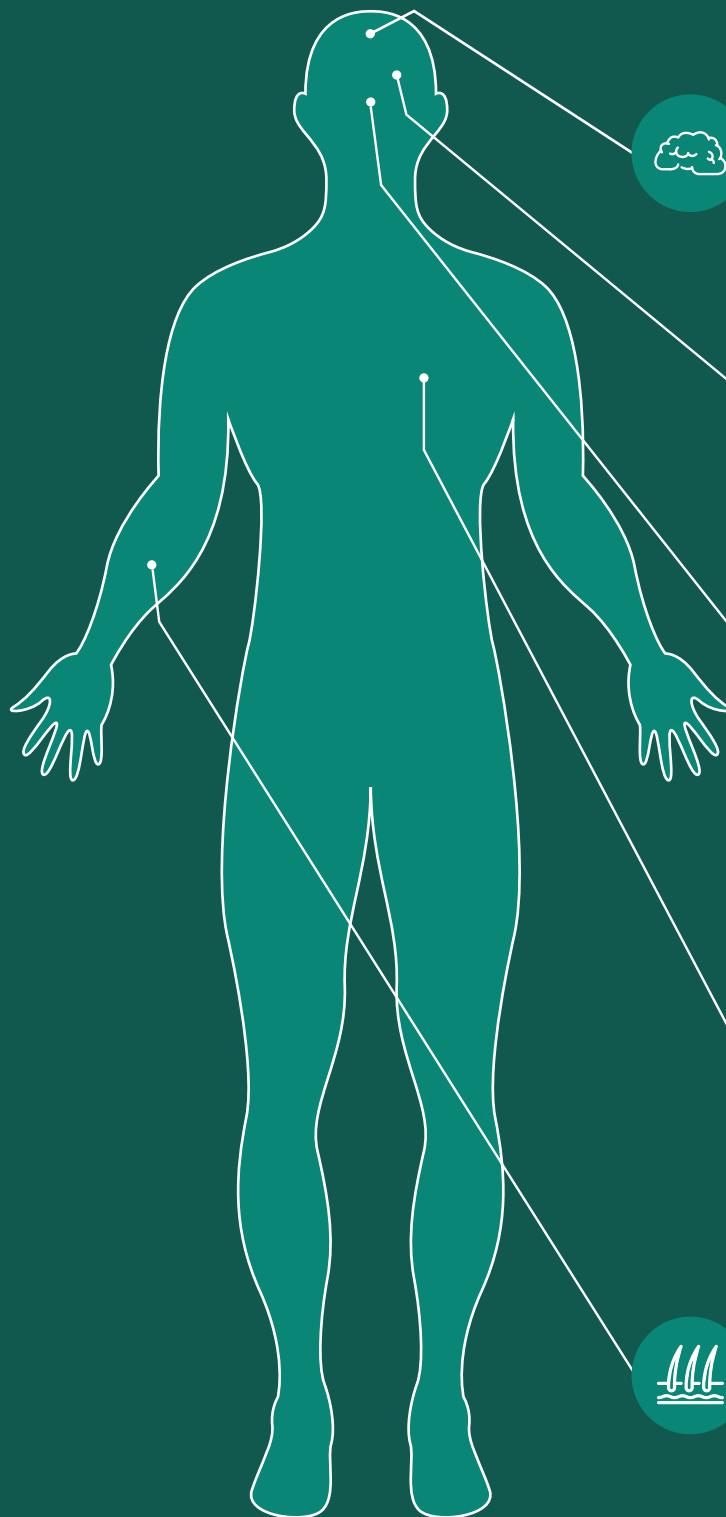
2. Reduced Health Risks:

By eliminating formaldehyde emissions, Zero-formaldehyde construction boards reduce the risk of respiratory issues, skin and eye irritation, allergies, and long-term health effects, including cancers like nasopharyngeal cancer and leukemia.

3. Enhanced Safety:

Workers involved in the manufacturing and installation of zero-formaldehyde construction boards are exposed to lower health risks, contributing to improved workplace efficiency, eliminating employee illness, improving safety and overall well-being.

“Build Responsibly, Live Beautifully, Breathe Easily with DesertBoard’s PSB®”



BRAIN

Headache, weakness, drowsiness/lethargy, difficulty concentrating, irritability, anxiety, nausea, dizziness.

EYES

Dryness, itching/stinging, tearing, redness.

UPPER RESPIRATORY TRACT

Dryness, itching/stinging, nasal congestion, nasal drip, sneezing, nosebleed, throat pain.

LUNGS

Chest tightness, drowning, sensation, wheezing, dry cough, bronchitis.

SKIN

Redness, dryness, general and localised itching.

PSB® UNIQUE CHARACTERISTICS

ZERO EMISSIONS



Experience a healthier living environment with PSB®. Our meticulously manufactured boards are made with Zero Formaldehyde PMDI resin and therefore completely free from toxic formaldehyde emissions (As per the Al Sa'afat Certificate of Product Conformity).

SUSTAINABLE



PSB® is a 100% sustainable building material, upcycled from regenerative palm fronds (Zero deforestation) that are trimmed yearly to maintain the health of the tree. Unlike traditional wooden boards that often depend on logging and forest depletion, PSB® offers an eco-friendly alternative without compromising natural resources.



BIOGENIC CARBON SEQUESTRATION

Discover eco-innovation with our PSB®, minimizing environmental impact. Each standard m3 of PSB® sequesters 1,430 kg of CO2e, locking carbon in the material. Certified by an Eco Platform verified Environmental Product Declaration.



CONSTRUCTION PERFORMANCE



PSB® boards are engineered for exceptional durability, making them ideal for demanding applications. A study conducted by the College of Engineering, Abu Dhabi University, United Arab Emirates compared PSB® (18 mm) with MDF and particle boards through compression tests using the ELE-3000 Compressive Testing Machine. Under axial loading, PSB® recorded only a 16% reduction in thickness, significantly outperforming MDF boards (50% reduction) and particle boards (44.5% reduction).

FIRE RESISTANCE



PSB® EcoCore FR is specifically engineered with a specialized fire-retardant component to enhance its performance in critical structural elements such as door frames and shutters. By integrating advanced fire-resistant additives during manufacturing, it delivers superior fire safety performance—certified for 30, 60, 90, and 120 minutes of resistance in accordance with EN 1634-1, BS 476, and UL 10C standards.

INDOOR & OUTDOOR



PSB® boards are conscientiously designed for both indoor and outdoor applications and deliver exceptional performance.

PSB® UNIQUE CHARACTERISTICS



SOUND INSULATION

PSB® is engineered to significantly reduce noise transmission by efficiently absorbing and dissipating sound waves, achieving a noise reduction of up to 40 decibels (As per Al-Futtaim Sound Transmission Test). This makes PSB® an ideal solution for environments where minimizing noise pollution is critical, such as residential, commercial, or industrial spaces.



MOISTURE RESISTANCE

PSB® offers exceptional moisture resistance, providing long-lasting protection against humidity-related damage. This is supported by a study conducted by the Engineering Department at Abu Dhabi University, which used the Krüss Drop Shape Analyzer to measure water contact angles and assess surface wettability of various wood types. The results showed that MDF exhibited mild hydrophilicity with a contact angle of 50.2° and limited water spreading, while PSB demonstrated superior moisture resistance with a higher contact angle of 72.0°, indicating less absorption. Plywood fell in between at 65°, confirming PSB®'s enhanced ability to withstand water damage in humid conditions.



TERMITE RESISTANCE

PSB® wooden board offers natural resistance to termites, safeguarding structures from costly damage. Its built-in durability eliminates the need for harmful chemical treatments, making it a safer, eco-friendly choice.



HIGH SCREW WITHDRAWAL STRENGTH

PSB® has a high screw withdrawal value of 1,356 N at the edge and 1,112 N on the face, according to British Standard BS EN 320:2011 (Material Lab Certification). This makes the board an ideal choice for designing furniture, cabinets, and other structural assemblies that require strong joint components.



VERSATILE

PSB® wooden boards can be coated, laminated, or veneered to achieve a wide range of finishes—from classic to contemporary. Their inherent versatility ensures they seamlessly complement any aesthetic vision.

PSB® CERTIFICATION PARTNERS

Fire Rating Certificate



مختبر الإمارات للسلامة
EMIRATES SAFETY LABORATORY



لإدارة العامة للدفاع المدني - دبي
DIRECTORATE GEN. OF DUBAI CIVIL DEFENS



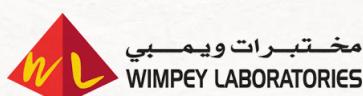
Environmental Product Declaration (EPD) Certificate



Environment Certificate



Technical Certificate



In-Country Value



Formaldehyde Certificate



Life Cycle Assessment (LCA) Certificate



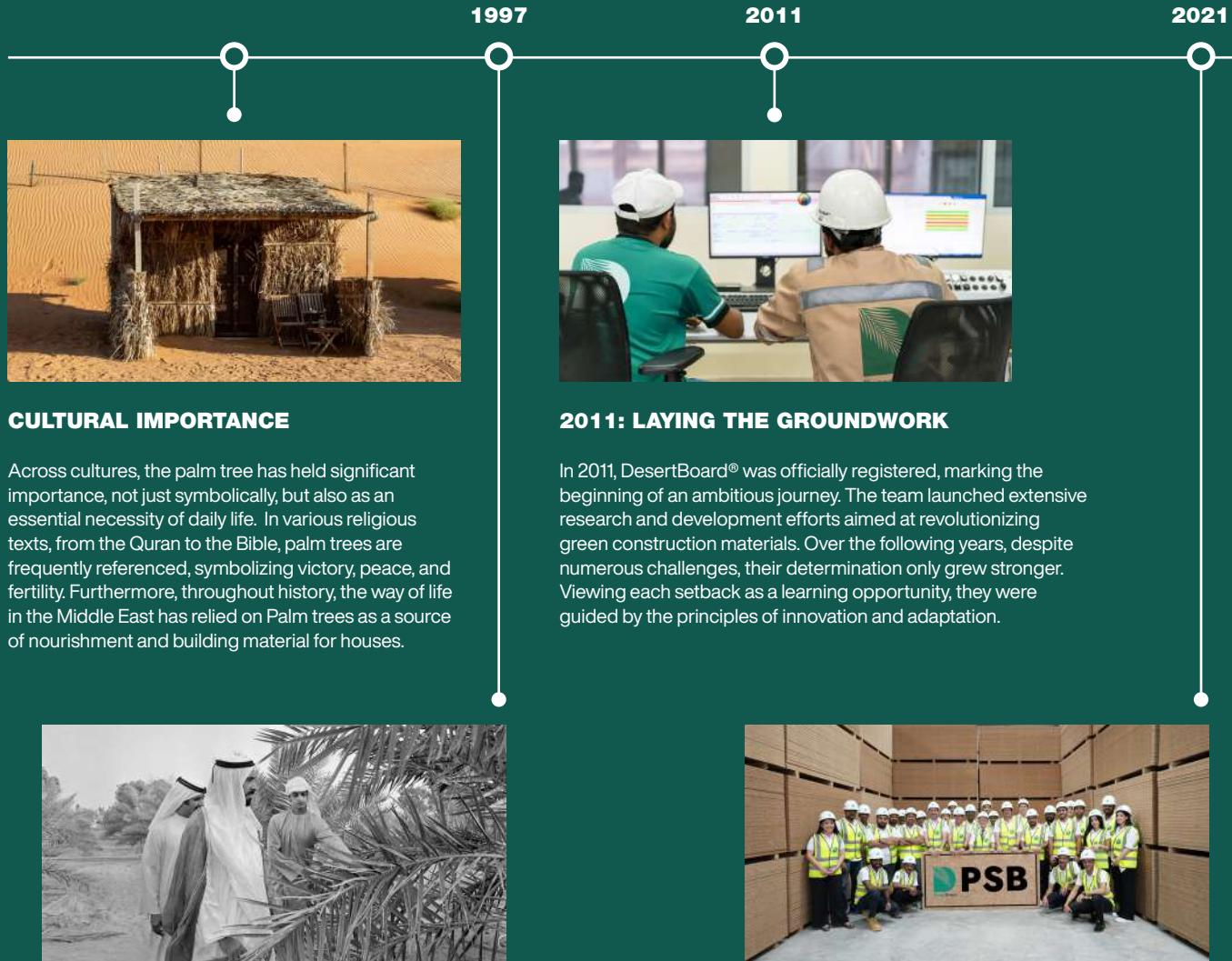
Management and Safety Certificate

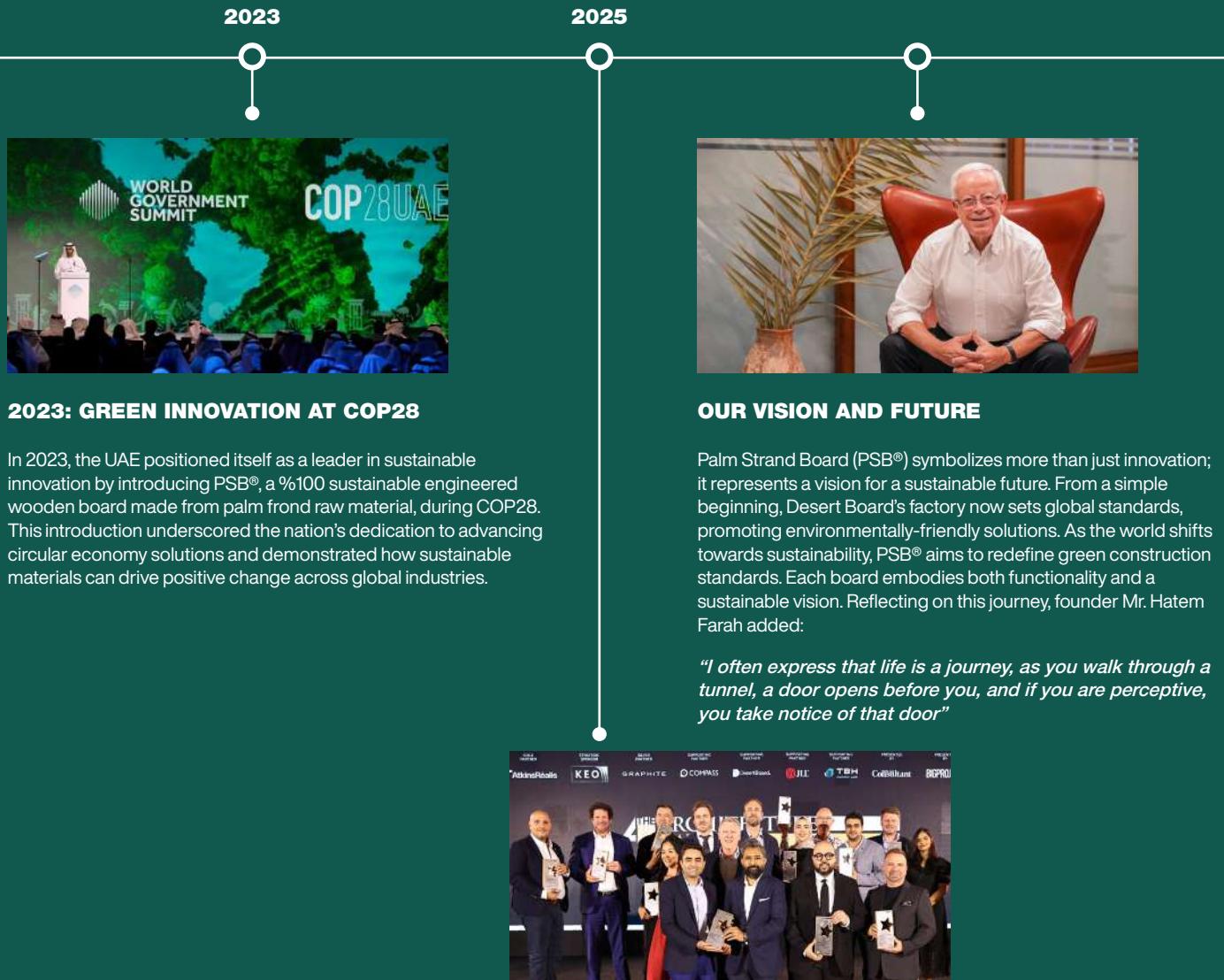


Acoustic Insulation Certificate

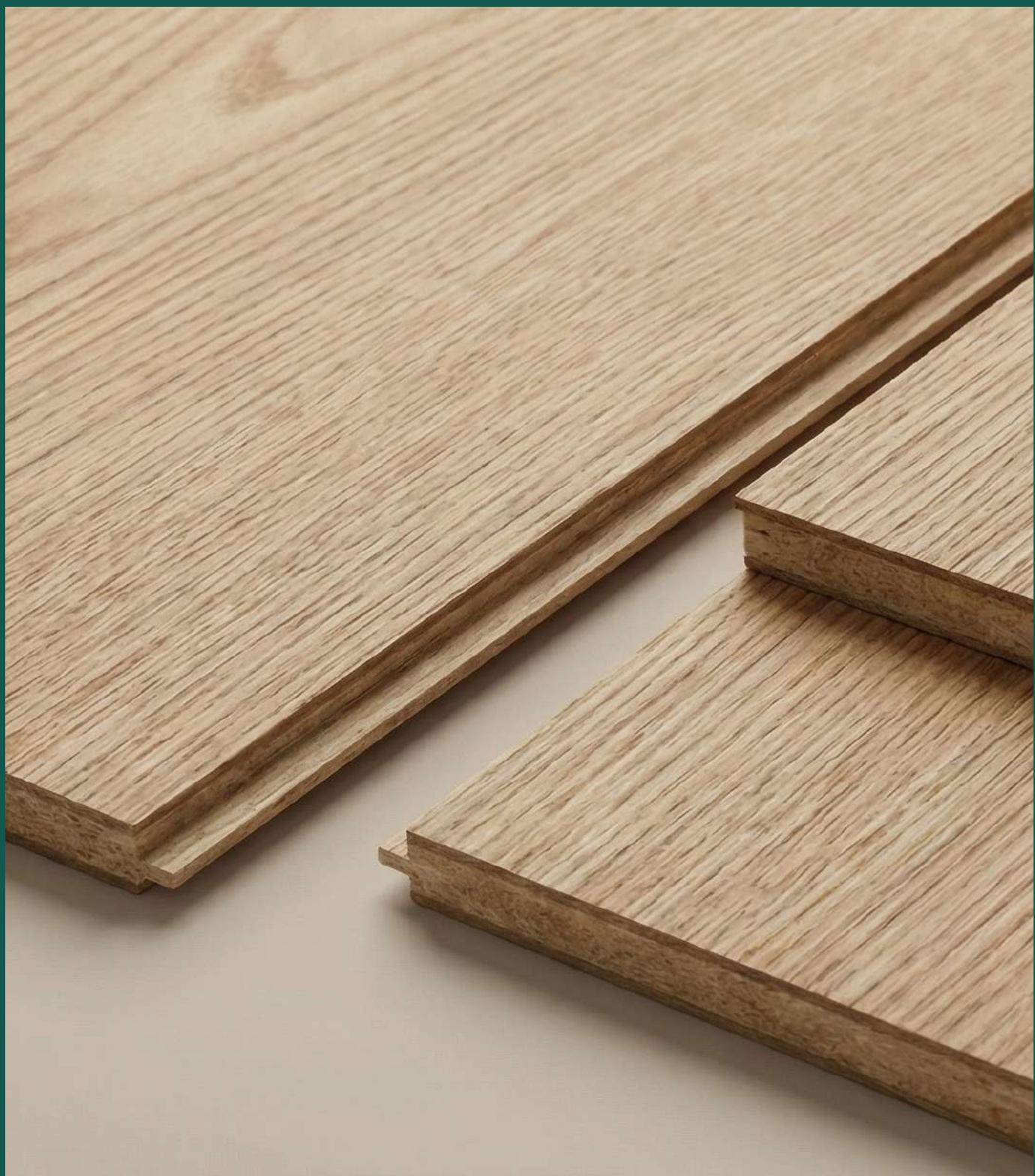


Timeline Of A Sustainable Revolution





DesertBoard's PSB® has earned recognition both globally and locally for its sustainable design. It proudly secured the prestigious iF Design Awards across four categories (Global), Innovation Champion of the Year (UAE), the CSR Commitment Award (UAE), the Big See Architecture Award (Europe), KEZAD Group's Appreciation Award (UAE) and an honorary award from the Hamdan Bin Mohammed Heritage Center (UAE). Notably, projects utilizing PSB® boards, such as On Weaving, have been celebrated with the AlMusalla Prize (KSA) and featured prominently at major international exhibitions including the Venice Biennale, Bukhara, and Uzbekistan.





DesertBoard.

**Beyond Net Zero – the carbon sink board that will reduce
the carbon footprint of your built environment.**

THE REGION'S MOST SUSTAINABLE BUILDING MATERIAL



DesertBoard.

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Desert Board