

## PB P4

Load-bearing particleboard for use in dry conditions

### DESCRIPTION

Sonae Arauco PB P4 is a particleboard with high density and fine sanded surface suitable for surfacing. The board presents excellent mechanical characteristics and a particularly adapted core to receive screws and fixation systems, it's easy to mill and a low formaldehyde emission (E1 class and compliant with ChemVerbotsV (E05)).

Regarding reaction to fire and according to EN 13986, PB P4 with a thickness  $\geq 9$  mm and a minimum density of  $600 \text{ Kg/m}^3$ , is classified as D-s2, d0 (Euroclasses definition by EN 13501-1).

In addition to technical performance PB P4 panels are sustainable and environmental friendly products.

**For further information on available sizes and thicknesses, please see our Offer & Service Brochure.**

### APPLICATIONS

PB P4 is indicated for load-bearing applications in dry conditions. The product must be applied in service class 1 (restrictions in temperature and ambient humidity).

PB P4 panels can be used for office furniture, shelves and other furniture with special requirements. It is also applicable as structural floors, walls and roofs.

### RECOMMENDATION

Boards must be stacked on a hard, level surface and protected from direct contact with water. Expansion and contraction in wood products is directly related to moisture content and must be considered during design and construction.

Wood based panels are biodegradable and can be recycled, follow local regulation for the disposal of residues.

### PROPERTIES



EASY TO MILL



VERSATILITY



LOAD BEARING



COMPLIANT WITH CHEMVERBOTSV



LOW EMISSIONS



OFFICE & EDUCATION



SPORTS & LEISURE



DOORS



RETAIL & EXHIBITIONS



RESTAURANTS & HOTELS



HEALTH & WELLNESS



CONSTRUCTION



FLOORING

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### GENERAL CHARACTERISTICS

PROPERTY	TEST	UNIT	THICKNESS RANGE (mm)	
			>25 - 32	>32 - 40
Tolerance on thickness	EN 324-1	mm	± 0,3	± 0,3
Tolerance on length and width	EN 324-1	mm	± 5	± 5
Edge straightness tolerance	EN 324-2	mm/m	≤ 1,5	≤ 1,5
Squareness tolerance	EN 324-2	mm/m	≤ 2	≤ 2
Tolerance on mean density	EN 323	%	± 10	± 10
Moisture content	EN 322	%	5 - 13	5 - 13

### TECHNICAL INFORMATION

PROPERTY	TEST	UNIT	THICKNESS RANGE (mm)	
			>25 - 32	>32 - 40
Density*	EN 323	Kg/m <sup>3</sup>	630	630
Bending strength	EN 310	N/mm <sup>2</sup>	≥ 11	≥ 9
Modulus of elasticity	EN 310	N/mm <sup>2</sup>	≥ 1850	≥ 1500
Internal bond	EN 319	N/mm <sup>2</sup>	≥ 0,25	≥ 0,20
Swelling (24 hours)	EN 317	%	≤ 15	≤ 14
Formaldehyde emission class			E1**	

\* Value to be used only as a reference

\*\* Compliant with limit of ChemVerbotsV (E05)

PB P4 boards meet the specifications of EN 312, type P4, and are CE marked. For more information regarding the technical properties check the product Declaration of Performance (DoP).

### CERTIFICATIONS

Please pay attention to certified products:



The mark of  
responsible forestry  
FSC® C009049



FSC® and PEFC™ - certified products are available on request and availability.

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### ADDITIONAL INFORMATION

PROPERTY	UNIT	THICKNESS (mm)	BENDING $f_m$	TENSION $f_t$	COMPRESSION $f_c$	PANEL SHEAR $f_v$	PANEL SHEAR $f_r$
			or 0°	or 0°	or 0°		
Strength	N/mm <sup>2</sup>	> 25 – 32	9,2	6,1	9,0	4,8	1,2
		> 32 – 40	7,5	5,0	7,6	4,4	1,1

PROPERTY	UNIT	THICKNESS (mm)	BENDING $E_m$	TENSION $E_t$ and COMPRESSION $E_c$	PANEL SHEAR $G_v$
			or 0°	or 0°	
Stiffness	N/mm <sup>2</sup>	> 25 – 32	2400	1400	680
		> 32 – 40	2100	1200	600