

	Declaration of Performance	Marini – <i>Palmas PR</i>
		Review: <i>0.1</i>
	DoP MRP-CE/UKCA-23 - CE 2+	Code: <i>DoP</i>
		Approved: <i>20/01/2025</i>

Product identification:

PINE PLYWOOD EN 636-2S

Manufacturer

Marini Industrial de Compensados Ltda. - Marply

Headquarters

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Branch

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Certifications

	HFB Engineering GMBH Mill # No. 1034 - CPR – 1396 / 1 / 2024
	BBA British Board of Agrément Mill # No. 0836 - CPR – 22 / F6350

Normative

Harmonized standard	AVCP System
EN 13986:2004+A1:2015	System 2+

Product Characteristics

Product Types	09 mm		12 mm		15 mm		18 mm		20 mm	21 mm	22 mm	24 mm	25 mm	30 mm
Layers/Plies	3	5	5	7	5	7	7	9	7	7	7	9	9	11
Intended uses	Use as structural components in humid conditions.													

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Sizes and tolerances

Dimensional tolerances		Declared performance		Technical Specification
Length and Width	1220 x 2440 mm	1218 x 1219 mm	2438 x 2439 mm	EN 324-1
	1250 x 2500 mm	1248 x 1252 mm	2498 x 2502 mm	
Squareness		+/- 3.0 mm		EN 324-2
Straingthness		+/- 1.5 mm/m		
Thickness		See below per Type		EN 324-1 / EN 315 / EN 12871

Product Types	09 mm	12 mm	15 mm	18 mm	20 mm	21 mm	22 mm	24 mm	25 mm	30 mm
Maximum	9,5	12,6	15,7	18,7	20,8	21,8	22,9	24,9	26	29
Minimum	8,3	11,2	14,2	17,1	19	20	20,9	23,1	23,9	30,9

Essential characteristics	Declared performance	Technical Specification
Release of formaldehyde	E1 (phenolic resin bonded)	EN 13986 Anex B Note 2
Bond quality	Class 3	EN 314-1/2 Type testing
Density	540 kg/m ³	EN 323 Type testing
Reaction to fire	D-s2, d0 *) / Floring - Dfi-s1	EN 13986 Table 8
	D-s2, d2 **) / Floring - Dfi-s1	
Water vapour permeability	Wet - 70 µ / Dry - 200 µ Dry - 200 µ	EN 13986 Table 9
Airborne sound insulation	R = 13 x lg (m _A) + 14	EN 13986 part 5.10
Sound absorption coefficient	0,10 / 0,30	EN 13986 Table 10
Thermal conductivity	0,13 W (m.k)	EN 13986 Table 11
Content of pentachlorophenol	< 5 ppm	EN 13986 part 5.18
Biological durability	Class 2	EN 335 / EN 1099

*) Without an air gap behind the panel

**) With a closed or an open-air gap not more than 22 mm behind the panel

Product Performance - 100% Pinus

Essential characteristics	Declared performance					Technical Specification		
Bending properties	See below per Type					EN 310 Type testing / EN 636		
Type	09 mm (3 layer)	09 mm (5 layer)	12 mm (5 layer)	12 mm (7 layer)	15 mm (5 layer)	15 mm (7 layer)	18 mm (7 layer)	18 mm (9 layer)
Classes - F	20/5	25/10	15/10	30/15	15/10	30/15	20/10	25/25
Classes - E	30/5	50/15	30/10	50/25	30/15	70/20	40/20	50/40
Type	20 mm		21mm	22 mm		24 mm	25 mm	
Classes - F	20/10		10/5	15/10		15/20	15/15	
Classes - E	40/15		30/15	40/15		40/40	20/30	

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Use as structural components in humid conditions.

<i>Essential characteristics</i>	<i>Declared performance</i>	<i>Technical Specification</i>
Bending strenght and stiffness (N/mm2)	See below per Type	EN 12369 - 2

Type	09 mm (3 layer)	09 mm (5 layer)	12 mm (5 layer)	12 mm (7 layer)	15 mm (5 layer)	15 mm (7 layer)	18 mm (7 layer)	18 mm (9 layer)
Para. $F_{m,0}$	20	25	15	30	15	30	20	25
Perp. $F_{m,90}$	5	10	10	15	10	15	10	25
Para. $E_{m,0}$	3000	5000	3000	5000	3000	7000	4000	5000
Perp. $E_{m,90}$	500	1500	1000	2500	1500	2000	2000	4000

Type	20 mm	21 mm	22 mm	24 mm	25 mm	30 mm
Para. $F_{m,0}$	20	10	15	15	15	10
Perp. $F_{m,90}$	10	5	10	20	15	10
Para. $E_{m,0}$	4000	3000	4000	4000	2000	3500
Perp. $E_{m,90}$	1500	1500	1500	4000	3000	3000

<i>Essential characteristics</i>	<i>Declared performance</i>	<i>Technical Specification</i>
Compression- and Tensil strength and stiffness (N/mm²)	See below per Type	EN 12369 - 2

Type	9mm	12mm	15mm	18mm	20mm	21mm	22mm	24mm	25mm	30mm
Para. $F_{m,0}$	8	6	6	8	8	8	6	6	6	4
Perp. $F_{m,90}$	2.5	5	5	5	5	7.5	5	10	7.5	5
Para. $E_{m,0}$	1500	1500	1500	2000	2000	2000	2000	2000	1000	1500
Perp. $E_{m,90}$	400	800	1200	1600	1200	2000	1200	3200	2400	2400

<i>Essential characteristics</i>	<i>Declared performance</i>	<i>Technical Specification</i>
Embedment Strength (N/mm²)	See below per Type	EN 1995-1-1

Nails	Diameter (mm)	2.0	3.0	4.0	5.0	6.0
	$f_{h,k}$	44.6	39.5	36.3	33.9	32.1
Bolts	Diameter (mm)	6.0	7.0	8.0	10.0	12.0
	$f_{h,k}$	51.7	51.15	50.6	49.5	48.4

For use as STRUCTURAL WALL sheathing on studs in dry and humid conditions

<i>Essential characteristics</i>	<i>Declared performance</i>	<i>Technical Specification</i>
Soft body impact resistance	Fullfilled from Type 12mm	EN 596 / EN 12871
Soft body impact resistance	Fullfilled from Type 15mm	EN 596 / EN 12871
Soft body impact resistance	Fullfilled from Type 18mm	EN 596 / EN 12871

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For use as STRUCTURAL Roof and Floor decking on joists in dry and humid conditions

Essential characteristics		Declared performance						Technical Specification			
Under point load		See below per Type						EN 12871			
Product types		12mm 5ply			15mm 5ply			18mm 7ply			21mm 7ply
Edge suport		S.E.	S.E.	T&G	S.E.	S.E.	T&G	S.E.	S.E.	T&G	T&G
Span		450	600	600	450	600	450	600	600	600	900
Strength (N)	F _{max}	5070	-	3956	6433	-	6010	7524	-	5349	5021
	F _{ser}	3670	-	2769	4393	-	3565	5138	-	3184	3515
Stiffness (N/mm)	R _{mean}	393	-	190	656	-	643	586	-	450	284

For use as STRUCTURAL Roof decking on joists in dry and humid conditions

Essential characteristics		Declared performance				Technical Specification		
Under point load		See below per Type				EN 12871		
Product types		15 mm 5ply				18 mm 5ply		
Edge suport		T&G				T&G		
Span		800				1220		
Strength (N)	F _{max}	3310				3409		
	F _{ser}	2734				3348		
Stiffness (N/mm)	R _{mean}	133				77		

The performance of the product (products) is in conformity with the declared performance.

This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and behalf of the manufacturer by:

Mateus Moura - Quality technician Signatures

Place and date of issue:

Brazil, Palmas Paraná
January 29, 2025

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Use as structural components in humid conditions. **Combined (Pine & Eucalyptus)**

Essential characteristics			Declared performance				Technical Specification	
Bending strenght and stiffness (N/mm2)			See below per Type				EN 12369 - 2	
Type	09 mm (3 layer)	09 mm (5 layer)	12 mm (5 layer)	12 mm (7 layer)	15 mm (5 layer)	15 mm (7 layer)	18 mm (7 layer)	18 mm (9 layer)
Para. $F_{m,0}$	20	25	15	30	15	30	20	25
Perp. $F_{m,90}$	5	10	10	15	10	15	10	25
Para. $E_{m,0}$	4000	2500	5000	8000	5000	6000	3500	6000
Perp. $E_{m,90}$	1000	3000	1500	5000	1500	5000	3500	4000

Product Performance - **Combined (Pine & Eucalyptus)**

Essential characteristics			Declared performance				Technical Specification	
Bending properties			See below per Type				EN 310 Type testing / EN 636	
Type	09 mm (3 layer)	09 mm (5 layer)	12 mm (5 layer)	12 mm (7 layer)	15 mm (5 layer)	15 mm (7 layer)	18 mm (7 layer)	18 mm (9 layer)
Classes - F	20/10	30/30	25/10	30/35	20/10	30/25	15/15	30/30
Classes - E	40/10	25/30	50/15	80/50	50/15	60/50	35/35	60/40

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Basic panel markings

Product identification							PINE PLYWOOD EN 636-2 S							
Product Types	09 mm		12 mm		15 mm		18 mm		20 mm	21 mm	22 mm	24 mm	25 mm	30 mm
Layers/Plyes	3	5	5	7	5	7	7	9	7	7	7	9	9	11

Example of information on a label affixed to the panel (for panel under AVCP system 2+)

 1034	 UK 0836	CE marking consisting of the logo, identification number of the notified production control certification body
Marply		Name or identification mark of the manufacturer
05	22	Last two digits of the year in which the marking was first affixed
MRP-CE/UKCA-23/CE2+		Reference number of the DoP
EN 13986:2004+A1:2015		Number and year of the European Standard
EN 636-2 S Use as structural components in humid conditions		Unique identification code of the panel and its intended use
18mm E1		Performances on some of the essential Characteristic
Bond Class 3 Structural		

Example of information on the panel (for panel under AVCP system 2+)

 _1034_Marply_05_MRP-CE-23/CE2+_  _UK 0836_Marply_22_MRP-UKCA-23/CE2+_EN 13986:2004+A1:2015_EN 636-2 S_** mm_D-s2,d0_E1_Bond_Class_3

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