Marini COMPENSADOS	Declaration of Performance *DoP MRP-CE/UKCA-23*	CE	UK CA

PINE PLYWOOD CE 2+								
Product identification	**PINE PLYWOOD EN 636-2S**							
Product Types	**9mm**		**12mm**		**15mm**		**18mm**	
Layers/Plies	**3**	**5**	**5**	**7**	**5**	**7**	**7**	**9**

Product Types	**20mm**	**21mm**	**22mm**	**24mm**	**25mm**	**30mm**
Layers/Plies	7	7	7	9	9	11
Intended uses	Use as structural components in humid conditions.					

Name and contact address	Marini Indústria De Compensados LTDA Rod. PRT 449 km 2,4 - Industrial Area Palmas, PR - 85.555-000 - Brazil
Mill identification	MARINI - PALMAS
Harmonized standard	EN 13986:2004+A1:2015
AVCP System	2+

Notified Body	**CE**	Nr 1034 - HFB Engineering GMBH, Leipzig, Germany
Certificate		**No. 1034 - CPR - 1396/2/2022**

Notified Body	**UKCA**	No. 0836 - BBA British Board of Agrément
Certificate		**UK 0836 - CPR - 22/F6350**

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/m3	EN 323 Type testing
Reaction to fire	D-s2, d0 *) / Floring - D_{fl}-s1	EN 13986 Table 8
	D-s2, d2 **) / Floring - D_{fl}-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

Marini COMPENSADOS	**Declaration of Performance** ***DoP MRP-CE/UKCA-23***	CE	UK CA

Dimensional tolerances	**Declared performance**	**Technical Specification**
Length and width	+/- 3.0 mm	EN 324-2
Squareness	+/- 3.0 mm	
Straingthness	+/- 1.5 mm/m	
Thickness	See below per Type	EN 324-1 / EN 315 / EN 12871

Product Type	9mm	12mm	15mm	18mm	20mm	21mm	22mm	24mm	25mm	30mm
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

100% Pinus

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

Type		20mm	21mm	22mm	24mm	25mm	30mm
Bending properties Classes EN (636)	**F**	20/10	10/5	15/10	15/20	15/15	10/10
	E	40/15	30/15	40/15	40/40	20/30	35/30

Combined (Pine & Eucalyptus)

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

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

Mateus F. Moura
S.G.Q. - Marini

Place and date of issue: Brazil, Palmas Paraná, April 10, 2024

a. Use as structural components in humid conditions.

100% Pinus

		Declared performance				Technical Specification			
		See below per Type				EN 12369-2			
Product type		9mm (3 layer)	9mm (5 layer)	12mm (5 layer)	12mm (7 layer)	15mm (5 layer)	15mm (7 layer)	18mm (7 layer)	18mm (9 layer)
Bending strenght and stiffness (N/mm2)	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		20mm	21mm	22mm	24mm	25mm	30mm
Bending strenght and stiffness (N/mm2)	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

Product type		9mm	12mm	15mm	18mm	20mm	21mm	22mm	24mm
Compression- and Tensil strength and stiffness (N/mm²)	Para. $F_{t-c,0}$	8	6	6	8	8	8	6	6
	Perp. $F_{t-c,90}$	2.5	5	5	5	5	7.5	5	10
	Para. $E_{t-c,0}$	1500	1500	1500	2000	2000	2000	2000	2000
	Perp. $E_{t-c,90}$	400	800	1200	1600	1200	2000	1200	3200

Product type		25mm	30mm
Compression- and Tensil strength and stiffness (N/mm²)	Para. $F_{t-c,0}$	6	4
	Perp. $F_{t-c,90}$	7.5	5
	Para. $E_{t-c,0}$	1000	1500
	Perp. $E_{t-c,90}$	2400	2400

Combined (Pine & Eucalyptus)

		Declared performance				Technical Specification			
		See below per Type				EN 12369-2			
Product type		9mm (3 layer)	9mm (5 layer)	12mm (5 layer)	12mm (7 layer)	15mm (5 layer)	15mm (7 layer)	18mm (7 layer)	18mm (9 layer)
Bending strenght and stiffness (N/mm2)	Para. $F_{m,0}$	20	30	25	30	20	30	15	30
	Perp. $F_{m,90}$	10	30	10	35	10	25	15	30
	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 type		9mm	12mm	15mm	18mm
Compression- and Tensil strength and stiffness (N/mm²)	Para. $F_{t-c,0}$	8	6	6	8
	Perp. $F_{t-c,90}$	2.5	5	5	5
	Para. $E_{t-c,0}$	1500	1500	1500	2000
	Perp. $E_{t-c,90}$	400	800	1200	1600

Marini COMPENSADOS	Declaration of Performance *DoP MRP-CE/UKCA-23*	CE	UK CA

Embedment Strength (N/mm²)							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	

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

Essential characteristics	Declared performance	Technical Specification
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

c. 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		
Edge suport		S/E	S/E	S/E	S/E	T&G	S/E	S/E	T&G
Span		450	600	450	600	450	600	600	600
Strength (N)	Fmax	5070	-	6433	-	6010	7524	-	5349
	Fser	3670	-	4393	-	3565	5138	-	3184
Stiffness (N/mm)	Rmean	393	-	656	-	643	586	-	450

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

Essential characteristics		Declared performance			
Under point load		See below per Type			EN 12871
Product types		15mm 5ply	18mm 7ply		
Edge suport		T&G	T&G		
Span		800	1220		
Strength (N)	Fmax	3310	3409		
	Fser	2734	3348		
Stiffness (N/mm)	Rmean	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

Mateus F. Moura
S.G.Q. - Marini

Place and date of issue: Brazil, Palmas Paraná, April 10, 2024

Marini COMPENSADOS	Declaration of Performance *DoP MRP-CE/UKCA-23*	CE	UK CA

PINE PLYWOOD CE 4								
Product identification	**PINE PLYWOOD EN 636-2 NS**							
Product Types	**9mm**		**12mm**		**15mm**		**18mm**	
Layers/Plies	**3**	**5**	**5**	**7**	**5**	**7**	**7**	**9**

Product Types	**20mm**	**21mm**	**22mm**	**24mm**	**25mm**	**30mm**		
Layers/Plies	7	7	7	9	9	11		
Intended uses	Internal use as non-structural components in humid conditions							

Name and contact address	Marini Indústria De Compensados LTDA Rod. PRT 449 km 2,4 - Industrial Area Palmas, PR - 85.555-000 - Brazil
Mill identification	MARINI - PALMAS
Harmonized standard	EN 13986:2004+A1:2015
AVCP System	4

Notified Body	**CE**	Nr 1034 - HFB Engineering GMBH, Leipzig, Germany
Certificate		**No. 1034 - CPR - 1396/2/2022**

Notified Body	**UKCA**	No. 0836 - BBA British Board of Agrément
Certificate		**UK 0836 - CPR - 22/F6350**

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/m3	EN 323 Type testing
Reaction to fire	D-s2, d0 / Floring - D_{fl}-s1	EN 13986 Table 8
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

Dimensional tolerances	**Declared performance**	**Technical Specification**
Length and width	+/- 3.0 mm	EN 324-2
Squareness	+/- 3.0 mm	
Straingthness	+/- 1.5 mm/m	
Thickness	See below per Type	EN 324-1 / EN 315 / EN 12871

Product Type	9mm	12mm	15mm	18mm	20mm	21mm	22mm	24mm	25mm	30mm
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

Marini COMPENSADOS	Declaration of Performance *DoP MRP-CE/UKCA-23*	CE	UKCA

100% Pinus

Essential characteristics		Declared performance				Technical Specification			
Bending properties		See below per Type				EN 310 Type testing			
Type		9mm (3 layer)	9mm (5 layer)	12mm (5 layer)	12mm (7 layer)	15mm (5 layer)	15mm (7 layer)	18mm (7 layer)	18mm (9 layer)
Bending strength (N/mm²)	Fk, 0	33	43,1	23	47,7	27,8	50,4	35,4	45,8
	Fk, 90	11	20	15,9	27	17,9	25,3	18	41,1

Type		20mm	21mm	22mm	24mm	25mm	30mm		
Bending strength (N/mm²)	Fk, 0	32	21,2	25,8	19,4	23,4	21,5		
	Fk, 90	17,8	14,8	16,9	20,9	23,4	22,4		

Type		9mm (3 layer)	9mm (5 layer)	12mm (5 layer)	12mm (7 layer)	15mm (5 layer)	15mm (7 layer)	18mm (7 layer)	18mm (9 layer)
Bending stiffness (N/mm²) MOE	Fk, 0	3.439	5.039	3.224	4.967	3.633	6.505	4.280	4.721
	Fk, 90	650	1.586	1.240	2.329	1.892	1.962	2.233	3.721

Type		20mm	21mm	22mm	24mm	25mm	30mm		
Bending strength (N/mm²)	Fk, 0	4.030	3.099	4.265	2.886	2.358	3.461		
	Fk, 90	1.778	1.482	1.714	3.733	3.385	2.938		

Combined (Pine & Eucalyptus)

Essential characteristics		Declared performance				Technical Specification			
Bending properties		See below per Type				EN 310 Type testing			
Type		9mm (3 layer)	9mm (5 layer)	12mm (5 layer)	12mm (7 layer)	15mm (5 layer)	15mm (7 layer)	18mm (7 layer)	18mm (9 layer)
Bending strength (N/mm²)	Fk, 0	36,6	52,2	39,4	51,6	32,8	46,8	24,3	48
	Fk, 90	17,8	42,9	21,7	53,0	16,3	43,0	28,5	46

Type		9mm (3 layer)	9mm (5 layer)	12mm (5 layer)	12mm (7 layer)	15mm (5 layer)	15mm (7 layer)	18mm (7 layer)	18mm (9 layer)
Bending stiffness (N/mm²) MOE	Fk, 0	4.485	2.641	4.953	7.596	5.334	6.167	3.171	5.651
	Fk, 90	982	2.811	1.722	4.671	1.824	5.260	3.281	4.030

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

Mateus F. Moura
S.G.Q. - Marini

Place and date of issue: Brazil, Palmas Paraná, April 10, 2024

Marini COMPENSADOS	Declaration of Performance *DoP MRP-CE/UKCA-23*	CE	UKCA

Product identification	PINE PLYWOOD EN 636-2 S

Basic panel markings

Product Types	9mm		12mm		15mm		18mm	
Layers/Plies	3	5	5	7	5	7	7	9

Product Types	20mm	21mm	22mm	24mm	25mm	30mm	
Layers/Plies	7	7	7	9	9	11	

CE 1034	UKCA 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 **EN 636-2 S** **Use as structural components in humid conditions**		Number and year of the European Standard Unique identification code of the panel and its intended use
18mm **E1** **Bond Class 3** **Structural**		Performances on some of the essential Characteristic

CE _1034_Marply_05_MRP-CE-23/CE2+_ UKCA_UK 0836_Marply_22_MRP-UKCA-23/CE2+_

EN 13986:2004+A1:2015_EN 636-2 S_18 mm_D-s2,d0_E1_Bond_Class_3

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

Mateus F. Moura
S.G.Q. - Marini

Place and date of issue: Brazil, Palmas Paraná, April 10, 2024

Marini COMPENSADOS	**Declaration of Performance** ***DoP MRP-CE/UKCA-23***	CE	UKCA

Product identification	**PINE PLYWOOD EN 636-2Ns**

Basic panel markings

Product Types	**9mm**		**12mm**		**15mm**		**18mm**	
Layers/Plies	**3**	**5**	**5**	**7**	**5**	**7**	**7**	**9**

Product Types	**20mm**	**21mm**	**22mm**	**24mm**	**25mm**	**30mm**	
Layers/Plies	7	7	7	9	9	11	

CE **1034**	UKCA **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/CE4		Reference number of the DoP
EN 13986:2004+A1:2015 **EN 636-2 NS** **Use as non-structural components in humid conditions**		Number and year of the European Standard Unique identification code of the panel and its intended use
18mm **E1**		Performances on some of the essential Characteristic
Bond Class 3		

CE _Marply_05_MRP-CE-23/CE4_ UKCA _UK 0836_Marply_22_MRP-UKCA-23/CE4_EN 13986:2004+A1:2015_EN 636-2 NS_18 mm_D-s2,d0_E1_Bond_Class_3

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

Mateus F. Moura
S.G.Q. - Marini

Place and date of issue: Brazil, Palmas Paraná, April 10, 2024