

Declaration of Performance  
Dop N° GRP/PP/17/CE2+

Page 1 of 2

1. Unique identification code of the product-type:

**PINE PLYWOOD EN 636-2 S**

thicknesses 9mm thru 30mm

Grades A/C, B/C, CPC CE2+ and C+/C CE2+

Layups with 2.7 mm faces / backs and 2.7mm, 3.1mm, 3.3mm and 3.9mm cores

2. Intended uses

Structural components in dry and humid conditions

Structural wall sheathing on studs in dry and humid conditions

Structural roof decking on joists and floor decking on joists in dry and humid conditions

3. Manufacturer:

Indústria de Compensados GUARARAPES Ltda.

Rua Alcina Santos Araujo, 411, São Francisco

Palmas, PR 85555-000 BRAZIL

Tel. +55-46 3263-8300

e-mail: [Januario@guarapes.com.br](mailto:Januario@guarapes.com.br)

Mill: Guararapes Palmas

4. Authorised technical representative:

Mr. Duncan King

Ashford Associates

18 Pear Tree Close, Alderholt, Fordingbridge, Hants SP6 3ER, United Kingdom

Tel: +44 (0)1425-656269

e-mail: [duncanking@ashfordassociatesuk.com](mailto:duncanking@ashfordassociatesuk.com)

5. System of assessment and verification of constancy of performance (AVCP):

System 2+

6. Harmonised standard:

EN 13986:2004+A1:2015

Notified Body:


1034 - HFB Engineering GMBH of Leipzig, Germany.

Certificates:

1034-CPR-12981/1/2017 dated March 2, 2017.

Panel marking example:

GuaraPLY CP-C 18 mm DD/MM/YYYY HH:MM  PALMAS - 08 1034 DoP N° GRP/PP/17/CE2+ EN 13986:2004 + A1:2015 Bond Class 3 FLOOR DECKING | STRUCTURAL E1 PINE PLYWOOD EN 636-2 S

  
Gerson Aldo de Souza - Technical Manager  
In Palmas, PR on 3rd .March. 2017


## Declaration of Performance Dop N° GRP/PP/17/CE2+

Page 2 of 2

<b>7. Declared performance:</b>									
<b>a. General</b>									
Essential characteristics		Declared performance				Technical Specification			
Bond quality		Class 3 (phenolic)				EN 314-1/2			
Biological durability		Use Class 2				EN 335 / EN 1099			
Mean density		550 kg/m <sup>3</sup>				EN 323			
Formaldehyd Class		E1				EN 13986 Annex B Note 2			
Reaction to fire		D-s2, d0 (Flooring - DFL-s1)				EN 13986 Table 8			
Water vapour permeability $\mu$		Wet cup - 70 / Dry cup - 200				EN 13986 Table 9			
Sound absorption coefficient		0,10 / 0,30				EN 13986 Table 10			
Thermal conductivity $\lambda$		0,13 W/(m.K)				EN 13986 Table 11			
Content of pentachlorophenol		< 5 ppm				EN 13986 Part 5.18			
<b>b. For use as STRUCTURAL COMPONENTS in dry and humid conditions</b>									
Essential characteristics		Declared performance				Technical Specification			
Characteristic values (L5%)		See below per Type				EN 12369-2			
		<b>9mm</b>	<b>12mm</b>	<b>15mm</b>	<b>18mm</b>	<b>21mm</b>	<b>24mm</b>	<b>27mm</b>	<b>30mm</b>
Strength (N/mm <sup>2</sup> )	Parallel $\parallel$	45,0	38,0	38,0	38,0	38,0	30,0	30,0	30,0
	Perpen. $\perp$	8,0	15,0	15,0	23,0	23,0	23,0	23,0	23,0
Stiffness (N/mm <sup>2</sup> )	Parallel $\parallel$	6.300	4.500	4.500	4.500	5.400	4.500	4.500	4.500
	Perpen. $\perp$	450	900	1.800	1.800	2.250	2.700	2.250	2.700
<b>Class table 1 DIN EN 636:2012-12</b>									
Strength $f_m, 0 f_m, 90$	Parallel $\parallel$	F30		F25			F20		
	Perpen. $\perp$	F5		F10			F15		
Stiffness $E_m, 0 E_m, 90$	Parallel $\parallel$	E70		E50			E50		
	Perpen. $\perp$	E5	E10	E20	E25	E30	E25	E30	
<b>Compression</b>									
Strength (N/mm <sup>2</sup> )	$f_{t-c,0,5}$	90	15	12,5			10		
		0	2	4			6		
Stiffness (N/mm <sup>2</sup> )	$E_{t-c,50}$	90	5600	4000			4800	4000	
		0	250	500	1000	1250	1500	1250	1500
<b>c. For use as STRUCTURAL WALL sheathing on studs in dry and humid conditions</b>									
Essential characteristics		Declared performance				Technical Specification			
Soft body impact resistance		Fulfilled for Type 12,5 mm				EN 12871 / EN 596 type testing			
<b>d. For use as STRUCTURAL ROOF decking on joists in dry and humid conditions</b>									
Essential characteristics		Declared performance				Technical Specification			
Under point load		See below per Type				EN 12871			
Product types		12mm 5ply	12mm 5ply	15mm 5ply	15mm 5ply	15mm 5ply	18mm 7ply	18mm 7ply	18mm 7ply
Spacing (mm)		450	600	450	450	810	600	600	1220
Edge support		S/E	S/E	S/E	T&G	T&G	S/E	T&G	T&G
Strength(N)	Fmax	5.024	2.941	5.227	4.409	2.705	7.680	5.836	2.630
	Fser	2.940	2.225	3.942	3.069	1.834	4.362	3.116	2.488
Stiffness (N/mm)	Rmean	345	233	510	423	172	580	435	114
Embedment Strength (N/mm <sup>2</sup> )		State below per fastener type				EN-383			
		4.0mm Bolt		6.0mm Bolt		8.0mm Bolt		Tested Type	
		$\parallel$	$\perp$	$\parallel$	$\perp$	$\parallel$	$\perp$		
Mean Strength		64,9	68,4	47,1	51,3	45,9	53,6	12 mm 5ply	
Lower Limit value (L5%)		43,8	49,8	31,4	37,7	35,4	36,2		

The performance of the product identified above is in conformity with the set of declared performance's.  
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 on behalf of the manufacturer by:

  
 Gerson Aldo de Souza - Technical Manager  
 In Palmas, PR on 3rd March, 2017