

*Sudati*

CE

1034-CPD-12982/1/10

## **Declaration of Conformity**

Indústria de Compensados Sudati Ltda.  
Av. Pres. Getúlio Vargas, 1638  
Palmas, PR 85555-000  
Brazil

declares that the plywood manufactured at its

**Sudati Palmas Plywood Mill**

bearing the marking below:

**CE 1034-CPD-12982/1/10 SUDPLY PALMAS 10 EN 13986 EN 636-2 S E1**

intended to be used in buildings and constructions

conform with EN 13986 and its Annex ZA

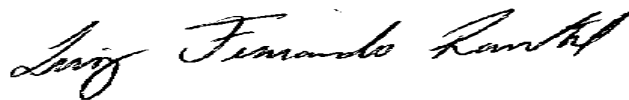
for internal use as structural components in dry and humid conditions  
and for internal use as structural floor and roof on joists  
as per technical file SDP-CE-01/10, attached.

The Factory Production Control was certified by

HFB Engineering GMBH  
Zschortauer Strasse 42  
04129 Leipzig  
Germany

with certificate No. 1034-CPD-12982/1/10 of April 6th, 2010, attached.

Palmas, 16th April, 2010.



Luiz Fernando Rankel  
Technical Manager

**Technical File SDP-CE-01/10**

16th April, 2010.

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**SUDPLY Pine Plywood**
**Physical characteristics:**

<b>Bonding quality</b> (EN 314-1/2)	<b>Bonding class 3</b> (typical mean performance listed below)
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<b>Mean density</b> (EN 323)	<b>580</b> Kg/m <sup>3</sup> at 9% moisture content
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<b>Size tolerances</b> (EN 315, EN 12871)	<b>Length and width</b>	<b>Squareness</b>	<b>Straightness</b>
	+ 0 / - 3.0mm	+/- 1.0 mm/m	+/- 1.0 mm/m

<b>Thickness tolerances</b> (mm)					<b>Panel constructions</b>			
<b>Panel type</b>	<b>Sanded panels</b>		<b>Touch sanded or unsanded panels</b>		<b>Layup</b>	<b>Faces</b> (mm)	<b>Centers</b> (mm)	<b>Cores</b> (mm)
	Min.	Max.	Min.	Max.				
9mm 3ply	8,6	9,4	8,3	9,8	- -	2,7	x	3,7
12mm 4ply	11,6	12,4	11,2	12,8	- - -			3,7
12,5mm 5ply	12,1	12,9	11,7	13,3	- - - -		2,7	
15mm 5ply	14,6	15,4	14,2	15,8	- - - -		3,7	
18mm 7ply	17,6	18,4	17,2	18,8	- - - - -		2,7	
21mm 7ply	20,6	21,4	20,2	21,8	- - - - -		2,7	3,7
24mm 9ply	23,6	24,4	23,2	24,8	- - - - - -		3,1	
27mm 9ply	26,6	27,4	26,2	27,8	- - - - - -		3,7	
30mm 11ply	29,6	30,4	29,2	30,8	- - - - - - -		3,1	

<b>Release of formaldehyde</b>	<b>E1</b> Taken from EN 13986 Annex B, NOTE 2 for phenolic glue.
<b>Reaction to fire</b>	Flooring - <b>D<sub>FL</sub>-s1</b> Other uses - D-s2, d0 Taken from EN 13986 Table 8 for min. 400 kg/m <sup>3</sup> :
<b>Water vapour permeability</b>	<b>Wet cup - 70 μ</b> <b>Dry cup - 200 μ</b> Taken from EN 13986 Table 9 for 500 kg/m <sup>3</sup> :
<b>Airborne sound insulation</b>	<b>R = 13 x lg (m<sub>a</sub>) + 14</b> Calculated in acc. to EN 13986 part 5.10 using the formula.
<b>Sound absorption coefficient</b>	<b>250-500 Hz - 0,10</b> <b>1.000-2.000 Hz - 0,30</b> Taken from EN 13986 Table 10:
<b>Thermal conductivity</b>	<b>0,13 W/(m.K)</b> Taken from EN 13986 Table 11 for 500 kg/m <sup>3</sup> :
<b>Biological durability</b> (EN 335-1/3)	<b>Hazard class 2</b> Taken from ENV 1099 and EN 350-2 item 2.10b
<b>Content of pentachlorophenol (PCP)</b>	<b>&lt; 5 ppm</b> Taken from EN 13986 part 5.18.

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**SUDPLY Pine Plywood**

**Performance characteristics for non structural uses:**

Panel type	Faces (mm)	Flat bending (EN 310)							
		Strength (N/mm <sup>2</sup> )				Stiffness (N/mm <sup>2</sup> )			
		//		-/-		//		-/-	
		Mean	L5%	Mean	L5%	Mean	L5%	Mean	L5%
9mm 3ply	<b>2,7</b>	74,1	<b>53,0</b>	19,8	<b>15,7</b>	<b>7.593</b>	4.433	<b>1.012</b>	866
12mm 4ply		45,5	<b>42,8</b>	21,6	<b>17,8</b>	<b>4.540</b>	3.483	<b>1.801</b>	1.514
12,5mm 5ply		52,3	<b>43,5</b>	21,9	<b>16,7</b>	<b>6.744</b>	4.616	<b>1.929</b>	1.457
15mm 5ply		50,7	<b>42,6</b>	29,1	<b>23,2</b>	<b>6.314</b>	4.670	<b>3.113</b>	2.684
18mm 7ply		45,1	<b>42,8</b>	26,0	<b>22,8</b>	<b>5.295</b>	4.366	<b>2.792</b>	2.284
21mm 7ply		46,4	<b>41,7</b>	30,8	<b>24,7</b>	<b>6.427</b>	4.925	<b>4.020</b>	3.328
24mm 9ply		50,4	<b>41,8</b>	27,1	<b>23,0</b>	<b>5.438</b>	4.011	<b>3.193</b>	2.576
27mm 9ply		45,7	<b>41,1</b>	27,8	<b>22,8</b>	<b>7.289</b>	4.336	<b>4.287</b>	3.469
30mm 11ply		45,2	<b>40,6</b>	26,7	<b>23,0</b>	<b>6.766</b>	5.851	<b>3.403</b>	2.622

**Performance characteristics for structural use as components:**

Panel type	Faces (mm)	Flat bending (EN 12369-2)					
		Classes	Strength (N/mm <sup>2</sup> )		Stiffness (N/mm <sup>2</sup> )		
			L5%		Mean		
			//	-/-	//	-/-	
9mm 3ply	<b>2,7</b>	<b>F 30/10 E 40/5</b>	30,0	10,0	4.000	500	
12mm 4ply		<b>F 25/10 E 30/15</b>	25,0	10,0	3.000	1.500	
12,5mm 5ply		<b>F 25/10 E 40/10</b>	25,0	10,0	4.000	1.000	
15mm 5ply		<b>F 25/15 E 40/20</b>	25,0	15,0	4.000	2.000	
18mm 7ply		<b>F 25/10 E 40/20</b>	25,0	10,0	4.000	2.000	
21mm 7ply		<b>F 25/15 E 40/30</b>	25,0	15,0	4.000	3.000	
24mm 9ply		<b>F 25/15 E 40/25</b>	25,0	15,0	4.000	2.500	
27mm 9ply		<b>F 25/10 E 40/30</b>	25,0	10,0	4.000	3.000	
30mm 11ply		<b>F 25/15 E 50/25</b>	25,0	15,0	5.000	2.500	

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Performance characteristics for structural use as Roof Decking :

Thickness	Support spacing (span) mm	Strength under point load				Stiffness under point load		Impact resistance	
		Related to service		Ultimated load		R <sub>mean</sub> Average			
		F <sub>ser, k, 05</sub> 5% fractile		F <sub>max, k, 05</sub> 5% fractile					
		Mid span	Joint	Mid span	Joint	Mid span	Joint		
		N	N	N	N	N/mm	N/mm		
12,5 mm	400	1.235		3.236		455		Fulfilled	
	450	1.824	X	3.528	X	402	X	Fulfilled	
	600	2.225		2.941		233		Fulfilled	
12,5mm T&G	600	2.614	2.023	2.543	2.063	176	142	Fulfilled	
15mm T&G	815	2.014	2.163	3.335	2.643	225	151	Fulfilled	
18mm T&G	1.220	2.961	2.458	4.229	2.802	153	95	Fulfilled	

Performance characteristics for structural use as Floor Decking :

Thickness	Support spacing (span) mm	Strength under point load				Stiffness under point load		Impact resistance	
		Related to service		Ultimated load		R <sub>mean</sub> Average			
		F <sub>ser, k, 05</sub> 5% fractile		F <sub>max, k, 05</sub> 5% fractile					
		Mid span	Joint	Mid span	Joint	Mid span	Joint		
		N	N	N	N	N/mm	N/mm		
18mm	400	3.634		6.003		1.025		Fulfilled	
	480	4.112	X	5.779	X	858	X	Fulfilled	
	600	3.485		4.915		605		Fulfilled	
18mm T&G	400	3.077	2.795	4.993	3.551	952	774	Fulfilled	
	480	3.802	2.696	5.297	3.721	804	649	Fulfilled	
	600	3.405	2.464	5.270	4.059	586	466	Fulfilled	