

Sudati



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:

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

Thickness tolerances (mm)					Panel constructions			
Panel type	Sanded panels		Touch sanded or unsanded panels		Layup	Faces (mm)	Centers (mm)	Cores (mm)
	Min.	Max.	Min.	Max.				
9mm 3ply	8,6	9,4	8,3	9,8	- -	2,7	x 2,7	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	- - - -			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

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

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Performance characteristics for non structural uses:

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

Performance characteristics for structural use as components:

Panel type	Faces (mm)	Flat bending (EN 12369-2)				
		Classes	Strength (N/mm²)		Stiffness (N/mm²)	
			L5%		Mean	
			//	-/-	//	-/-
9mm 3ply	2,7	F 30/10 E 40/5	30,0	10,0	4.000	500
12mm 4ply		F 25/10 E 30/15	25,0	10,0	3.000	1.500
12,5mm 5ply		F 25/10 E 40/10	25,0	10,0	4.000	1.000
15mm 5ply		F 25/15 E 40/20	25,0	15,0	4.000	2.000
18mm 7ply		F 25/10 E 40/20	25,0	10,0	4.000	2.000
21mm 7ply		F 25/15 E 40/30	25,0	15,0	4.000	3.000
24mm 9ply		F 25/15 E 40/25	25,0	15,0	4.000	2.500
27mm 9ply		F 25/10 E 40/30	25,0	10,0	4.000	3.000
30mm 11ply		F 25/15 E 50/25	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_{mean} Average		
		$F_{ser, k, 05}$ 5% fractile		$F_{max, k, 05}$ 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	X	3.236	X	455	X	Fulfilled
	450	1.824		3.528		402		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				
		$F_{ser, k, 05}$ 5% fractile		$F_{max, k, 05}$ 5% fractile		R_{mean} Average		
		Mid span	Joint	Mid span	Joint	Mid span	Joint	
		N	N	N	N	N/mm	N/mm	
18mm	400	3.634	X	6.003	X	1.025	X	Fulfilled
	480	4.112		5.779		858		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