Sudati sudply | IBAITI MILL CE

Declaration of Performance
No. SUI/PP/13/CE2+

Product identification	PINE PLYWOOD EN 636-2 S							
Product Types	9mm	12mm	15mm	18mm	21mm	24mm	27mm	30mm
Intended uses	(See page 2)							

Name and contact address of the manufacturer	Indústria de Compensados Sudati Ltda. Rod. BR 153, Km 04, s/n Ibaiti, PR 84900-000 BRAZIL
Mill identification	SUDATI - IBAITI
Harmonized standard	EN 13986:2004
AVCP System	2+
Notified Body	1034 / HFB Engineering GMBH, Leipzig, Germany
Certificate	1034-CPD-12983/1/10 dated 6th April 2010.

Essential characteristics	Declared performance	Technical Specification
Release of formaldehyde	E1 (phenolic resin bonded)	EN 13986 Annex B Note 2
Bond quality	Class 3	EN 314-1/2 Type testing
Density	580 Kg/m3	EN 323 Type testing
Reaction to fire	D-s2, d0 / Flooring - DFL-s1	EN 13986 Table 8
Water vapour permeability	Wet - 70 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

Dimensional tolerances		Declared performance				Technical Specification			
Length and width		+0 / -3.0mm				EN 324-2			
Squareness		+/- 1.0 mm/m							
Straigthness		+/- 1.0 mm/m							
Thickness		See below per Type				EN 324-1 / EN 315 / EN 12871			
	Product Type	9mm	12mm	15mm	18mm	21mm	24mm	27mm	30mm
	Maximum (mm)	9,8	12,8	15,8	18,8	21,8	24,8	27,8	30,8
	Minimum (mm)	8,2	11,2	14,2	17,2	19,2	22,8	26,8	28,2

Essential characteristics		Declared performance				Technical Specification			
Bending properties		See below per Type				EN 310 Type testing			
	Type	9mm	12mm	15mm	18mm	21mm	24mm	27mm	30mm
Bending strength (N/mm2)	Fk, 0	44,9	45,8	39,5	41,9	38,0	32,7	33,3	31,4
	Fk, 90	14,8	18,0	24,0	23,9	25,5	23,6	31,1	26,2
Bending stiffness (N/mm2) MOE	Ek, 0	6.179	6.255	4.531	6.369	5.136	5.083	5.608	5.060
	Ek, 90	830	1.807	2.477	2.684	3.591	3.110	4.308	3.519

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Declaration of Performance
No. SUI/PP/13/CE2+

Intended use (1)			Internal use as structural components in humid conditions.							
Essential characteristics			**Declared performance**				**Technical Specification**			
Strenght and stiffness for structural use (N/mm2)			See below per Type				EN 12369-2 / EN 636			
	Product Type		9mm	12mm	15mm	18mm	21mm	24mm	27mm	30mm
	Para.	Fk, 0	30,0	30,0	25,0	25,0	25,0	20,0	20,0	20,0
	Perp.	Fk, 90	10,0	10,0	15,0	15,0	15,0	15,0	20,0	15,0
	Para.	Em, 0	6.000	6.000	4.000	6.000	5.000	5.000	5.000	5.000
	Perp.	Em, 90	500	1.500	2.500	2.500	3.000	3.000	4.000	3.000

Intended use (2)	Structural wall sheathing on studs.	
Essential characteristics	**Declared performance**	**Technical Specification**
Soft body impact resistance	Fulfilled for Type 12mm	EN 12781 / EN 596 Type testing

Intended use (3)			Structural roof decking on joists.					
Essential characteristics			**Declared performance**				**Technical Specification**	
Strength and Stiffness under point load			See below per Type				EN 12781 / EN 1195 Type testing	
	Product Type		12mm / 15mm			15mm	18mm / 21mm / 24mm / 27mm	
	Edge type		Square / T&G			T&G	T&G	
	Spacing (mm)		400	450	600	810	1220	
Strength (N)	Fser	Middle	1.235	1.824	2.225	1.996	4.191	
		Joint	x	x	x	1.834	2.488	
	Fmax	Middle	3.236	3.528	2.941	3.316	5.210	
		Joint	x	x	x	2.705	2.630	
Stiffness (N/mm)	Rmean	Middle	455	402	233	213	178	
		Joint	x	x	x	172	114	
Impact resistance			Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled	

Intended use (4)			Structural floor decking on joists.							
Essential characteristics			**Declared performance**				**Technical Specification**			
Strength and Stiffness under point load			See below per Type				EN 12781 / EN 1195 Type testing			
	Product Type		15mm	18mm / 21mm / 24mm / 27mm						
	Edge type		T&G	Square edge			T&G			
	Spacing (mm)		400	400	480	600	400	480	600	610
Strength (N)	Fser	Middle	3.691	3.634	4.112	3.485	3.077	3.802	3.405	2.634
		Joint	2.813	x	x	x	2.795	2.696	2.464	2.689
	Fmax	Middle	5.064	6.003	5.779	4.915	4.993	5.297	5.270	4.682
		Joint	3.697	x	x	x	3.551	3.721	4.059	3.854
Stiffness (N/mm)	Rmean	Middle	739	1.025	858	605	952	804	586	554
		Joint	535	x	x	x	774	649	466	447
Impact resistance			Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled

Place and date of issue	Issued by	Signature
Ibaiti, 1st July 2013.	Bartolomeu da Silva Neto Technical Director	

Sudati sudply | IBAITI MILL CE

CE Marking
DoP No. SUI/PP/13/CE2+

Product identification	PINE PLYWOOD EN 636-2 S

Standard panel markings

Product Types	9mm	12mm	15mm	18mm	21mm	24mm	27mm	30mm

CE	CE symbol
1034	Notified Body number
SUDATI - IBAITI	Manufacturing plant
10	Year of CE Marking
DoP No. SUI/PP/13/CE2+	Declaration of Performance
EN 13986:2004	Harmonized standard
Bond Class 3	Bond quality
E1	Release of formaldehyde
PINE PLYWOOD EN 636-2 S XXmm	Product identification
Structural Components	Product type Intended use as structural components in humid conditions

Special panel markings (attached to the standard markings, when applicable)

Product Types	12mm

Wall Sheathing	Intended use as structural wall sheathing on studs
Roof Decking	Intended use as structural roof decking on joists

Product Types	15mm	18mm	21mm	24mm	27mm	30mm

Roof Decking	Intended use as structural roof decking on joists
Floor Decking	Intended use as structural floor decking on joists

Place and date of issue	Issued by	Signature
Ibaiti, 1st July 2013.	Bartolomeu da Silva Neto Technical Director	

Sudati sudply | IBAITI MILL CE

REACH Statement
DoP No. SUI/PP/13/CE2+

Product identification	PINE PLYWOOD EN 636-2 S							
Product Types	9mm	12mm	15mm	18mm	21mm	24mm	27mm	30mm

Name and contact address of the manufacturer	Indústria de Compensados Sudati Ltda. Rod. BR 153, Km 04, s/n Ibaiti, PR 84900-000 BRAZIL
Mill identification	SUDATI - IBAITI

In compliance to	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
	Article 33 Duty to communicate information on substances in articles
And akowledging the	Candidate List of Substances of Very High Concern for Authorisation (published in accordance with Article 59(10) of the REACH Regulation) Last updated: 20 June 2013 to contain 144 substances.

We hereby state that	We are the ARTICLE producer of the above mentioned product.
	The above mentioned product is softwood plywood made solely of softwood veneers and bonded with phenol-formaldehyde resin, and is not treated with any chemicals.
	The above mentioned product is an ARTICLE which do not contain more than 0.1% of any of the SUBSTANCES of the SVHC list.
	NOTIFICATION is thus not required for this ARTICLE.

Place and date of issue	Issued by	Signature
Ibaiti, 1st July 2013.	Bartolomeu da Silva Neto Technical Director	

Sudati sudply | IBAITI MILL CE

Installation Guide
DoP No. SUI/13/CE2+

Product identification	PINE PLYWOOD EN 636-2 S

Intended use	Structural roof decking on joists - Load category H

Application

1. Panels may be used as Structural Roof Decking on joists in Hazard Class 1 as "warm roof" in Load Category H (roofs that are not accessible except for maintenance, repair and cleaning).
2. Panels may also be used in Hazard Class 2 as a "cold roof" in Load Category H provided adequate ventilation and vapour control layers are provided such that the equilibrium moisture content is normally limited to 17% and will only exceed 20% for short periods.
3. Panels may also be used as structural panels on pitched roofs.
4. Panels shall be transported, delivered, handled, stacked and stored as protected from the elements as possible and in accordance to the recommendations of clauses 6, 7, 8 and 9 of ENV 12872.
5. Before installation panels shall be allowed to reach an equilibrium moisture contend in accordance to the intended Service Class in accordance to clause 10 of ENV 12872.

Essential characteristics			Declared performance				Technical Specification
							EN 12781 / EN 1195 Type testing
Product Types			12mm / 15mm			15mm	18mm / 21mm / 24mm / 27mm
Stiffness under point load (N/mm)	Edge type		Square / T&G			T&G	T&G
	Spacing (mm)		400	450	600	810	1220
	Rmean	Middle	455	402	233	213	178
		Joint	x	x	x	172	114
Impact load resistance			Fulfilled				
Strength under point load			Fulfilled				

Fastener requirements		
Product Types	12mm / 15mm	18mm / 21mm / 24mm / 27mm
Minimum faster dimension (Ringshank)	Diameter - 2,4mm Length - 50mm	Diameter - 2,9mm Length - 50mm
Maximum fastener spacings on centres	Perimeter of the panels	150mm
	Intermediate supporting joists and noggings or stud of panels	300mm
Maximum fastener distance from panel edge		8mm

Installation

1. During and after installation, panels must be permanently protected from rain as quickly as possible.
2. Panels shall be laid with their long grain across the joists.
3. For square edged panels, the edges between the joists need to be supported on a minimum bearing of 18mm and the short edges supported for their full length on the joists.
4. A 3mm expansion gap shall be left between the edges of square edge panels to prevent buckling.
5. T&G panels shall be laid across the joists with both short edges supported on a joist.
6. All panels joints need to be staggered.
7. An expansion gap of 2mm per metre run of panel shall be provided around the perimeter of the roof to upstands or abutting construction and panels shall be firmly fixed down to prevent buckling and uplift from air currents.
8. Panels shall be cut, drilled, laid down and fixed in accordance to clauses 11, 12 and 15 of ENV 12872 and in accordance to the spacings given in the following table:

Sudati sudply | IBAITI MILL CE

Installation Guide
DoP No. SUI/13/CE2+

Product identification	PINE PLYWOOD EN 636-2 S

Intended use	Structural floor decking on joists - Load category A

Application
1. Panels may be used as Structural Floor Decking on joists in Hazard Classes 1 or 2 in Load Category A (areas for domestic and residential activities). 2. Panels shall be transported, delivered, handled, stacked and stored as protected from the elements as possible and in accordance to the recommendations of clauses 6, 7, 8 and 9 of ENV 12872. 3. Before installation panels shall be allowed to reach an equilibrium moisture contend in accordance to the intended intended Service Class in accordance to clause 10 of ENV 12872.

Essential characteristics			Declared performance				Technical Specification			
							EN 12781 / EN 1195 Type testing			
Product Types			15mm	18mm / 21mm / 24mm / 27mm						
Stiffness under point load (N/mm)	Edge type		T&G	Square			T&G			
	Spacing (mm)		400	400	480	600	400	480	600	610
	Rmean	Middle	739	1.025	858	605	952	804	586	554
		Joint	535	x	x	x	774	649	466	447
Impact load resistance			Fulfilled							
Strength under point load			Fulfilled							

Fastener requirements		
Product Types	18mm / 21mm / 24mm / 27mm / 30mm	
Minimum faster dimension (Ringshank)	Diameter - 2,9mm Length - 50mm	
Maximum fastener spacings on centres	Perimeter of the panels	150mm
	Intermediate supporting joists and noggings or stud of panels	300mm
Maximum fastener distance from panel edge		8mm

Installation
1. During and after installation, panels need to be permanently protected from rain as quickly as possible. 2. Panels shall be laid with their long grain across the joists. 3. For square edged panels, the edges between the joists need to be supported on a minimum bearing of 18mm and the short edges supported for their full length on the joists. 4. A 3mm expansion gap shall be left between the edges of square edge panels to prevent buckling. 5. T&G panels shall be laid across the joists with both short edges supported on a joist. 6. All panels joints need to be staggered. 7. A 10mm expansion gap shall be left at the perimeter of the floor and each panel shall be firmly fixed down to prevent buckling. 8. Panels shall be cut, drilled, laid down and fixed in accordance to clauses 11, 12 and 13 of ENV 12872 and in accordance to the following table:

Place and date of issue	Issued by	Signature
Ibaiti, 1st July 2013.	Bartolomeu da Silva Neto Technical Director