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RANDA
Portas e Compensados

DECLARATION OF PERFORMANCE CE2+

Rv01 08/02/2019

Nr: 137815

Identification of product-type:	Structural Plywood - Phenol-formaldehyde bonded softwood plywood
Intended use or uses of the construction product:	For use as a structural component in internal dry, internal humid and external conditions.
Manufacturer:	**Randa Indústria e Comércio de Portas e Compensados Ltda** Ismael Camargo dos Santos Avenue, 539 Bituruna, PR - 84640-000 Brazil
System of assessment and verification of constancy of performance:	AVCP System 2+
Construction product covered by a harmonized standard:	Exova BM Trada, Notified body No. 1224, performed initial and continuous inspections of FPC under system 2+ and issued the certificate of conformity of the FPC 1224-CPR-0915
Declared Performance:	Annex In accordance with the harmonized European Standard: ***EN 13986:2004+A1:2015*** *– Wood-based panels for use in construction – Characteristics, evaluation Plywood of conformity and marking* ***EN 636:2012+A1:2015*** *— Specification*

The performance of the product is in conformity with the declared performance.

This declaration of performance is issued under the sole responsibility of the manufacture.

Signed for and on behalf of the manufacturer by:

Bituruna, 16th March 2018

Guilherme Ranssolin - Diretor

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Declared Performance

Essential characteristics	Product Type	9mm (3ply)	9mm (5ply)	12mm (5ply)	15mm (5ply)	18mm (7ply)	21mm (9ply)	24mm (9ply)	Harmonized technical specification
Characteristic bending strength (N/mm²)	Parallel	27,7	30,1	28,6	23,2	24,1	32,9	29,9	EN 310
	Perpendicular	9,8	17,4	15,1	18,1	15,0	17,5	15,5	
Mean stiffness (MOE) (N/mm²)	Parallel	4.275	2.739	3.712	2.939	4.118	4.086	3.417	
	Perpendicular	713	1.610	1.506	2.139	2.278	1.987	2.160	
Bonding quality		Class 3							EN 314
Durability (Moisture resistance) (%)		12	11	9	9	9	9	10	EN 322
Mean Density (kg/m³)		460	466	477	498	479	500	490	EN 323
Formaldehyde release (phenolic glue)		Class E1							EN 13986, Annex B
Reaction to fire (minimum density 400 kg/m³)		D-s2,d0							Taken from EN 13986, table 8
Water vapour permeability (mean density 500 kg/m³)	Wet cup μ	70							Taken from EN 13986, table 9
	Dry cup μ	200							
Airborne sound insulation		NPD							-
Thermal conductivity W/(m · K) (mean desity 500 kg/m³)		0,13							Taken from EN 13986, table 11
Mean bending strength for structure use (N/mm²)	Parallel	20,9	26,3	16,4	21,7	21,7	27,1	16,2	EN 789 and EN 1058
	Perpendicular	3,2	12,7	10,6	17,5	15,3	13,5	21,5	
[1]Characteristic bending strength for structure use (N/mm²)	Parallel	19,0	16,1	9,5	16,3	19,8	19,9	12,0	
	Perpendicular	2,9	7,4	6,8	11,2	14,3	10,0	13,0	
Mean stiffness (MOE) for structural use (N/mm²)	Parallel	2.666	2.544	3.502	3.270	5.984	4.189	2.462	
	Perpendicular	1.181	1.236	1.634	2.638	3.359	2.136	3.862	
Mean compression strength for structure use (N/mm²)	Parallel	17,5	13,4	16,8	14,4	17,1	19,4	16,8	
	Perpendicular	15,2	12,0	13,3	16,6	14,2	13,7	14,9	
[1]Characteristic compression strength for structure use (N/mm²)	Parallel	16,5	11,3	14,3	11,9	16,4	15,7	14,8	
	Perpendicular	14,0	9,7	10,7	12,9	13,7	12,2	13,1	
Mean compression stiffness (MOE) for structural use (N/mm²)	Parallel	3.810	2.847	3.978	2.822	3.782	4.417	3.694	
	Perpendicular	3.578	3.268	3.706	4.084	3.201	2.922	3.194	
Mean tension strength for structure use (N/mm²)	Parallel	14,8	15,5	15,1	13,5	13,6	17,6	14,0	
	Perpendicular	8,9	11,9	11,7	14,2	11,7	11,2	14,3	
[1]Characteristic tension strength for structure use (N/mm²)	Parallel	13,6	11,3	8,1	8,6	12,7	11,6	10,1	
	Perpendicular	8,0	7,9	7,5	9,1	10,9	7,9	10,3	
Mean tension stiffness (MOE) for structural use (N/mm²)	Parallel	3.488	2.619	3.973	3.037	4.366	4.292	3.232	
	Perpendicular	3.049	2.973	3.287	4.090	3.584	2.816	2.963	
Mechanical durability			NPD						-
Biological durability			NPD						-
Content of pentachlorophenol			PCP < 5 ppm						Taken from EN 13986

[1] log-normal distribution - NPD - No Performance Determined

Guilherme Ranssolin - Diretor