DECLARATION OF PERFORMANCE

DoP-1948-SQ-EUCA-01-01

Manufacturer Identification

Manufacturer	*Representative in the EU*	*Manufacturing Facility*
Uruply S.A. Ruta 5, Km 400,5 Tacuarembó, 45000 – Uruguay *Tel.: +598 (0)63 222 00*	**Lumin Forest Products Ltd** Carmanhall Road, **SANDYFORD** Dublin 18 – D18 Y3X2 – Ireland *europe-sales@lumin.com*	**Uruply S.A.** Ruta 5, Km 400,5 Tacuarembó, 45000 – Uruguay

Product Identification

Product Type	*Technical Class*	*Intended Use*	*AVCP (*)*
Lumin® Plywood *Pine and/or Eucalyptus Plywood for Structural Use in Internal Humid Conditions (EN 636 – 2 S)*	**EN 636 – 2 – S (structural)** **FLOORING & ROOFING**	Load-bearing structural panels in dry covered service conditions (***) (EN 1995-1-1 - Service Class 1 or 2) for FLOORING or ROOFING.	**2+**

(*) Assessment and Verification of Constancy of Performance system according to Annex V of regulation (EU) No 305/2011
(**) Batch identification: 7-digit number on bundle
(***) The conditions of Service Class 3 may correspond to the biological Hazard Class 3 to EN 335, for which this product cannot be used without further treatment and/or appropriate design.

Notified Body Reference

Notified Body	*Certificate or Assessment*	*Tasks performed for AVCP*
EXOVA BM TRADA Stocking Lane, Hughenden Valley HIGH WYCOMBE, Buckinghamshire HP14 4ND - United Kingdom	**1224 – CPR – 0122** EC Certificate of factory Production Control from 29/08/2017	Initial inspection of factory Continuous Surveillance Certification of Factory Production Control

Declared Performance

The declared properties of the product are given in the table overleaf, based on the following Harmonised Technical Specifications:

EN 13986:2004+A1:2015 – *Wood-based panels for use in construction – Characteristics, evaluation of conformity and marking*

EN 636:2012+A1:2015 – *Plywood - Specifications*

Installation instructions and safety data sheets can be found on www.lumin.com.

The performance of the product identified is in conformity with the declared performance. This declaration of performance is issued under the sole responsibility of the manufacturer identified above.

For and on behalf of the manufacturer by:

05/10/2017 in Tacuarembó, Uruguay

Alvaro Molinari
Industrial Manager
Uruply S.A.

Essential Characteristics			Performance for indicated Panel Thickness (mm)					
			9	*12*	*15*	*18*	*21*	*22*
Panel Layup [1]			EEE	EEEE EPPE	EEEEE EPEPE EEPEE	EEEEEE EEEEE EPEPE EEPEE EPPPE	EEEEEEE EEPEPEE EEPPPEE	EEEEEEE EEPEPEE EEPPPEE
Characteristic Strength [2] [3]								
Bending – parallel	$f_{m,0,k}$	(N/mm²)	20.0	20.0	20.0	20.0	20.0	20.0
Bending – perpendicular	$f_{m,90,k}$	(N/mm²)	10.0	10.0	10.0	10.0	10.0	10.0
Compression	$f_{c,0,k}$	(N/mm²)	NPD	NPD	NPD	NPD	NPD	NPD
Tension	$f_{t,0,k}$	(N/mm²)	NPD	NPD	NPD	NPD	NPD	NPD
Panel Shear	$f_{v,k}$	(N/mm²)	3.0	3.0	3.0	3.0	3.0	3.0
Planar Shear	$f_{r,k}$	(N/mm²)	0.5	0.5	0.5	0.5	0.5	0.5
Mean Stiffness (MOE) [4]								
Bending – parallel	$E_{m,0}$	(N/mm²)	3000	3000	3000	3000	3000	3000
Bending – perpendicular	$E_{m,90}$	(N/mm²)	1000	1000	1000	1000	1000	1000
Compression	$E_{c,0}$	(N/mm²)	NPD	NPD	NPD	NPD	NPD	NPD
Tension	$E_{t,0}$	(N/mm²)	NPD	NPD	NPD	NPD	NPD	NPD
Panel Shear	G_v	(N/mm²)	300	300	300	300	300	300
Planar Shear	G_r	(N/mm²)	20	20	20	20	20	20
Density								
Characteristic Density [2]	ρ_k	(kg/m³)	430	430	430	430	430	430
Mean Density [5]	ρ_{mean}	(kg/m³)	480	480	480	480	480	480
Bonding quality / durability			Bonding Class 3					
Biological Durability			Hazard Class 2					
Reaction to fire class			D-s2, d0					
Release of formaldehyde class			E1					
Water vapour permeability	μ							
Wet cup			70	70	70	70	70	70
Dry cup			200	200	200	200	200	200
Airborne sound insulation	R		22.20	23.80	25.10	26.10	27.00	27.30
Sound absorption	α							
Frequency range 250Hz to 500 Hz			0.10	0.10	0.10	0.10	0.10	0.10
Frequency range 1000Hz to 2000 Hz			0.30	0.30	0.30	0.30	0.30	0.30
Thermal Conductivity	λ	(W/m.K)	0.13	0.13	0.13	0.13	0.13	0.13
Release (Content) of Pentachlorophenol (PCP)			< 5 ppm	< 5 ppm	< 5 ppm	< 5 ppm	< 5 ppm	< 5 ppm

1) P = Pine ; E = Eucalyptus
2) "Characteristic" = lower 5th percentile calculated as defined in EN 636:2012+A1:2015
3) The characteristic values are as specified in EN 12369-2:2004 and shall be modified for the given Service Class as described in EN 1995-1-1 using the relevant k_{mod} and k_{def} modification factors
4) The characteristic value for Stiffness should be taken as 0.8 times the mean value
5) The mean density for design should be taken as 1.1 times the characteristic value

Performance for Use in FLOORING or ROOFING Applications are declared in the table Overleaf

Essential Characteristics			Performance for indicated Panel Thickness (mm)					
			9	*12*	*15*	*18*	*21*	*22*
Panel Layup [1)]			EEE	EEEE EPPE	EEEEE EPEPE EEPEE	EEEEEE EEEEE EPEPE EEPEE EPPPE	EEEEEEE EEPEPEE EEPPPEE	EEEEEEE EEPEPEE EEPPPEE
Reaction to fire class for Flooring						D_{FL}-s1	D_{FL}-s1	D_{FL}-s1
Roofing – Cat. of Use H – spacing :	**610**	**mm**						
Characteristic Point Load	$F_{max,k}$	(kN)	NPD	2.50	2.50	4.04	3.66	3.66
Mean Stiffness	R_{mean}	(kN)	NPD	165	165	322	408	408
Serviceability Point Load	$F_{ser,k}$	(kN)	NPD	3.57	3.57	5.78	5.24	5.24
Soft Body Impact Resistance Class			NPD	I	I	I	I	I
Roofing – Cat. of Use H – spacing :	**1220**	**mm**						
Characteristic Point Load	$F_{max,k}$	(kN)	NPD	NPD	NPD	4.04	4.04	4.04
Mean Stiffness	R_{mean}	(kN)	NPD	NPD	NPD	99	99	99
Serviceability Point Load	$F_{ser,k}$	(kN)	NPD	NPD	NPD	5.78	5.78	5.78
Soft Body Impact Resistance Class			NPD	NPD	NPD	II	II	II
Flooring – Cat. of Use A – spacing :	**500**	**mm**						
Characteristic Point Load	$F_{max,k}$	(kN)	NPD	NPD	NPD	4.04	3.66	3.66
Mean Stiffness	R_{mean}	(kN)	NPD	NPD	NPD	496	408	408
Serviceability Point Load	$F_{ser,k}$	(kN)	NPD	NPD	NPD	5.78	5.24	5.24
Soft Body Impact Resistance Class			NPD	NPD	NPD	I	I	I
Flooring – Cat. of Use A – spacing :	**610**	**mm**						
Characteristic Point Load	$F_{max,k}$	(kN)	NPD	NPD	NPD	NPD	3.66	3.66
Mean Stiffness	R_{mean}	(kN)	NPD	NPD	NPD	NPD	408	408
Serviceability Point Load	$F_{ser,k}$	(kN)	NPD	NPD	NPD	NPD	5.24	5.24
Soft Body Impact Resistance Class			NPD	NPD	NPD	NPD	I	I
Racking Resistance for Walls			NPD	NPD	NPD	NPD	NPD	NPD
Soft Body Impact Resistance Class for Walls			NPD	NPD	NPD	NPD	NPD	NPD

1) P = Pine ; E = Eucalyptus

NOTE: Panels used for Flooring or Roofing application shall have their short edge supported by the joists and their long edge either tongued & grooved or entirely supported by and fixed to a nogging or batten.