

## DECLARATION OF PERFORMANCE

DoP-1948-SQ-PINE-02-01

### Manufacturer Identification

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

### Product Identification

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

(\*) 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
<b>EXOVA BM TRADA</b> Stocking Lane, Hughenden Valley HIGH WYCOMBE, Buckinghamshire HP14 4ND - United Kingdom	<b>1224 – CPR – 0122</b> 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

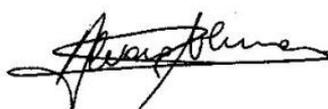
**EN 636:2012+A1:2015** – Plywood - Specifications

Installation instructions and safety data sheets can be found on [www.lumin.com](http://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
<b>Panel Layup</b> <sup>1)</sup>				PPPP PEEP	PPPPP PEPEP PEEEP	PPPPP PPEPP PEPEP PEEEP		
<b>Characteristic Strength</b> <sup>2) 3)</sup>								
Bending – parallel	$f_{m,0,k}$	(N/mm <sup>2</sup> )		15.0	15.0	15.0		
Bending – perpendicular	$f_{m,90,k}$	(N/mm <sup>2</sup> )		10.0	10.0	10.0		
Compression	$f_{c,0,k}$	(N/mm <sup>2</sup> )		NPD	NPD	NPD		
Tension	$f_{t,0,k}$	(N/mm <sup>2</sup> )		NPD	NPD	NPD		
Panel Shear	$f_{v,k}$	(N/mm <sup>2</sup> )		3.0	3.0	3.0		
Planar Shear	$f_{r,k}$	(N/mm <sup>2</sup> )		0.5	0.5	0.5		
<b>Mean Stiffness (MOE)</b> <sup>4)</sup>								
Bending – parallel	$E_{m,0}$	(N/mm <sup>2</sup> )		2500	2500	2500		
Bending – perpendicular	$E_{m,90}$	(N/mm <sup>2</sup> )		1000	1000	1000		
Compression	$E_{c,0}$	(N/mm <sup>2</sup> )		NPD	NPD	NPD		
Tension	$E_{t,0}$	(N/mm <sup>2</sup> )		NPD	NPD	NPD		
Panel Shear	$G_v$	(N/mm <sup>2</sup> )		300	300	300		
Planar Shear	$G_r$	(N/mm <sup>2</sup> )		20	20	20		
<b>Density</b>								
Characteristic Density	$\rho_k$	(kg/m <sup>3</sup> )		410	410	410		
Mean Density	$\rho_{mean}$	(kg/m <sup>3</sup> )		450	450	450		
<b>Bonding quality / durability</b>			Bonding Class 3					
<b>Biological Durability</b>			Hazard Class 2					
<b>Reaction to fire class</b>			D-s2, d0					
<b>Release of formaldehyde class</b>			E1					
<b>Water vapour permeability</b>								
Wet cup	$\mu$			70	70	70		
Dry cup				200	200	200		
<b>Airborne sound insulation</b>				23.80	25.10	26.10		
<b>Sound absorption</b>								
Frequency range 250Hz to 500 Hz	$\alpha$			0.10	0.10	0.10		
Frequency range 1000Hz to 2000 Hz				0.30	0.30	0.30		
<b>Thermal Conductivity</b>				0.13	0.13	0.13		
<b>Release (Content) of Pentachlorophenol (PCP)</b>				< 5 ppm	< 5 ppm	< 5 ppm		

1) P = Pine ; E = Eucalyptus

2) "Characteristic" = lower 5<sup>th</sup> 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
<b>Panel Layup</b> <sup>1)</sup>		PPPP PEEP	PPPPP PEPEP PEEEP	PPPPP PPEPP PEPEP PEEEP		
<b>Reaction to fire class for Flooring</b>						
<b>Roofing – Cat. of Use H – spacing :</b>		<b>610mm</b>	<b>815mm</b>	<b>1220mm</b>		
Characteristic Point Load $F_{max,k}$ (kN)		2.59	3.36	4.58		
Mean Stiffness $R_{mean}$ (kN)		107	109	77		
Serviceability Point Load $F_{ser,k}$ (kN)		1.81	2.35	3.20		
Soft Body Impact Resistance Class		II	II	II		
<b>Flooring – Cat. of Use A – spacing :</b>				<b>500mm</b>		
Characteristic Point Load $F_{max,k}$ (kN)		NPD	NPD	4.32		
Mean Stiffness $R_{mean}$ (kN)		NPD	NPD	328		
Serviceability Point Load $F_{ser,k}$ (kN)		NPD	NPD	3.02		
Soft Body Impact Resistance Class		NPD	NPD	I		
<b>Racking Resistance for Walls</b>		NPD	NPD	NPD		
<b>Soft Body Impact Resistance Class for Walls</b>		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 noggings or batten.**