

DECLARATION OF PERFORMANCE

SMARTPLY AIRTIGHT

Reference Number **DOP05REV3**

**SMARTPLY Europe DAC,
Belview, Slieverue,
Waterford, Ireland.**

Product Type	Intended Use	AVCP*	Notified Body Reference
OSB/3	Internal use as structural components in humid conditions	2+	0050

*Assessment and verification of constancy of performance system according to Annex V of regulation (EU) No 305/2011

Declared Performance

Essential Characteristics	Performance										Harmonised Technical Specification
Thickness Range (mm)	>6 to 10		>10 to 18 (12.5mm)		>18 to 25		>25 to 32		>32 to 40		EN 13986:2004 +A1:2015
Angle to Major Axis	0	90	0	90	0	90	0	90	0	90	
Characteristic Strength (N/mm²) - Bending f_m	NPD	NPD	16.4	8.2	NPD	NPD	NPD	NPD	NPD	NPD	
- Compression f_c	NPD	NPD	15.4	12.7	NPD	NPD	NPD	NPD	NPD	NPD	
- Tension f_t	NPD	NPD	9.4	7.0	NPD	NPD	NPD	NPD	NPD	NPD	
- Panel Shear f_v	NPD		6.8		NPD		NPD		NPD		
- Planar shear f_r	NPD		1.0		NPD		NPD		NPD		
Mean Stiffness (MOE) (N/mm²) - Tension E_t	NPD	NPD	3800	3000	NPD	NPD	NPD	NPD	NPD	NPD	
- Compression E_c	NPD	NPD	3800	3000	NPD	NPD	NPD	NPD	NPD	NPD	
- Bending E_m	NPD	NPD	4930	1980	NPD	NPD	NPD	NPD	NPD	NPD	
- Panel Shear G_v	NPD		1080		NPD		NPD		NPD		
- Planar Shear G_r	NPD		50		NPD		NPD		NPD		
¹ Reaction to Fire (Excluding Floorings)	NPD		D-s2,d0		NPD		NPD		NPD		
Reaction to Fire (Floorings)	NPD		D _{FL} -s1		NPD		NPD		NPD		
Water Vapour Permeability μ - Wet cup - Dry cup	NPD		420 750		NPD		NPD		NPD		
Release of Formaldehyde	NPD		E1		NPD		NPD		NPD		
Release (content) of Pentachlorophenol (PCP)	NPD		NPD		NPD		NPD		NPD		
Airborne Sound Insulation (surface mass) (R)	NPD		NPD		NPD		NPD		NPD		
Sound Absorption α (250 – 500 Hz)	NPD		0.10		NPD		NPD		NPD		
Sound Absorption α (1000 – 2000 Hz)	NPD		0.25		NPD		NPD		NPD		
Thermal Conductivity λ	NPD		0.11		NPD		NPD		NPD		

Essential Characteristics	Performance						Harmonised technical specification
Durability							EN 13986:2004 +A1:2015
Thickness Range (mm)	6 to 10	>10 to <18 (12.5mm)	18 to 25	>25 to 32	>32 to 40		
Internal Bond (N/mm²)	NPD	0.32	NPD	NPD	NPD		
Swelling in Thickness (%)	NPD	15	NPD	NPD	NPD		
Moisture Resistance - Internal Bond after Boil Test (N/mm²)	NPD	NPD	NPD	NPD	NPD		
Moisture Resistance - Internal Bond after Cyclic Test (N/mm²)	NPD	NPD	NPD	NPD	NPD		
Bending Strength after Cyclic Test – Major Axis (N/mm²)	NPD	8	NPD	NPD	NPD		
Mechanical (creep k_{def}) Service Class 1	NPD	1.50	NPD	NPD	NPD		
Mechanical (creep k_{def}) Service Class 2	NPD	2.25	NPD	NPD	NPD		
Thickness Range (mm)	>6 to 40						
Load-Duration Class	Permanent Action	Long Term Action	Medium Term Action	Short Term Action	Instantaneous Action		
Mechanical (duration of load k_{mod}) Service Class 1	0.40	0.50	0.7	0.90	1.10		
Mechanical (duration of load k_{mod}) Service Class 2	0.30	0.40	0.55	0.70	0.90		
Biological	Use classes 1 & 2						
² T&G Products	Spacing	12.5mm T&G	15mm T&G	18mm T&G	22mm T&G	24mm T&G	
³ Characteristic Point Load $F_{max,k}$ (N) (for floors and roofs)	400mm	N/A	N/A	N/A	N/A	N/A	
	600mm	N/A	N/A	N/A	N/A	N/A	
Point Load Mean Stiffness (N/mm) (for floors and roofs)	400mm	N/A	N/A	N/A	N/A	N/A	
	600mm	N/A	N/A	N/A	N/A	N/A	
³ Characteristic Point Load Serviceability $F_{ser,k}$ (N) (for floors and roofs)	400mm	N/A	N/A	N/A	N/A	N/A	
	600mm	N/A	N/A	N/A	N/A	N/A	
Soft Body Impact Resistance Floor/Roofs	400mm	N/A	N/A	N/A	N/A	N/A	
	600mm	N/A	N/A	N/A	N/A	N/A	
Soft Body Impact Resistance Walls	Spacing			> 9mm			
	400mm			Class III			
	600mm			Class III			
Air Permeability	<0.005 m³/(h.m²) to EN 12114						
Racking Strength	EN 594:2011						
- $F_{Rd,max,k}$ (N)	8800						
- R_{mean} (N/mm)	650						
¹ Minimum thickness 9mm for thickness range >6 – 10mm & performance D-s1,d0 for 18mm within thickness range >10 to 18							
² NPD for square edge products							
³ Characteristic means lower 5 th percentile calculated according to EN 1058							

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.

Signed for and on behalf of the manufacturer by:



Guillaume Coste – Technical Services Manager
Waterford, Ireland. 10th January 2024

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