

**DECLARATION OF PERFORMANCE**  
DoP Reference number: - **NP4DoPv4**  
**Norbord Europe Ltd**  
**Station Road**  
**Cowie**  
**Stirling**  
**FK7 7BQ**

Unique Identification code of the product type*	Intended Use	Systems of AVCP	Notified Body	Harmonised standard
P4 >10mm to 40mm*	Internal use as structural components in dry conditions	2+	1224	EN13986:2004 +A1:2015
*The unique identification code of the product type is a combination of the technical class and the individual product's nominal thickness				

**Declared performance (covering a range of product-types P4 >10mm to 40mm\*)**

Essential characteristics	Performance					
	>10 to 13	>13 to 20	>20 to 25	>25 to 32	>32 to 40	18 T&G 400 centres
<b>Characteristic Strength (N/mm<sup>2</sup>)</b>						
- Bending $f_m$	14.2	12.5	10.8	9.2	7.5	12.5
- Compression $f_c$	12.0	11.1	9.6	9.0	7.6	11.1
- Tension $f_t$	8.9	7.9	6.9	6.1	5.0	7.9
- Panel Shear $f_v$	6.6	6.1	5.5	4.8	4.4	6.1
- Planar shear $f_r$	1.8	1.6	1.4	1.2	1.1	1.6
<b>Mean Stiffness (MOE) (N/mm<sup>2</sup>)</b>						
- Tension $E_t$	1800	1700	1600	1400	1200	1700
- Compression $E_c$	1800	1700	1600	1400	1200	1700
- Bending $E_m$	3200	2900	2700	2400	2100	2900
- Panel Shear $G_v$	860	830	770	680	600	830
<b>Characteristic strength under point load <math>F_{max,k}</math> (kN)</b> <i>(for floors and roofs)</i>	NPD	NPD	NPD	NPD	NPD	5.4
<b>Mean stiffness under point load, R (N/mm)</b> <i>(for floors and roofs)</i>	NPD	NPD	NPD	NPD	NPD	840
<b>Characteristic serviceability strength under point load <math>F_{ser,k}</math> (kN)</b> <i>(for floors and roofs)</i>	NPD	NPD	NPD	NPD	NPD	4.3
<b>Racking resistance</b> <i>(for walls)</i>	NPD	NPD	NPD	NPD	NPD	NPD
<b>Soft Body Impact resistance</b> <b>Floor/roofs</b> <b>Walls</b>	NPD	NPD	NPD	NPD	NPD	Pass Floors
<b>Reaction to fire</b>	D-2,d0	D-2,d0	D-2,d0	D-2,d0	D-2,d0	DFL-s1
<b>Water vapour permeability <math>\mu</math></b>	NPD	NPD	NPD	NPD	NPD	NPD
<b>Release of formaldehyde</b>	E1	E1	E1	E1	E1	E1
<b>Release (content) of pentachlorophenol (PCP)</b>	≤5ppm	≤5ppm	≤5ppm	≤5ppm	≤5ppm	≤5ppm
<b>Airborne sound insulation (surface mass) (R)</b>	NPD	NPD	NPD	NPD	NPD	NPD
<b>Sound absorption</b> Frequency range 250Hz to 500Hz ( $\alpha$ )	0.1	0.1	0.1	0.1	0.1	0.1

<b>Sound absorption</b> Frequency range 1000Hz to 2000Hz ( $\alpha$ )	0.25	0.25	0.25	0.25	0.25		0.25
<b>Thermal conductivity</b> $\lambda$	NPD	NPD	NPD	NPD	NPD		NPD
<b>Durability</b>							
<b>Internal bond</b> (N/mm <sup>2</sup> )	0.40	0.35	0.30	0.25	0.20		0.35
<b>Swelling in thickness</b> (%)	16	15	15	15	14		15
<b>Mechanical</b> (creep $k_{def}$ ) <b>service class 1</b>	2.25	2.25	2.25	2.25	2.25		2.25
<b>Mechanical</b> (duration of load $k_{mod}$ )	<b>Action Mode</b>						
	<b>Permanent</b>	<b>Long Term</b>	<b>Medium Term</b>	<b>Short Term</b>	<b>Instantaneous</b>		
<b>Service Class 1</b>	0.3	0.45	0.65	0.85	1.1		
<b>Biological</b>	Use Class 1						

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

This declaration of performance is issued in accordance with regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Nick Fedo

At: - Cowie, Scotland

On: - 06-04-17

