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IV2 7JQ

DoP ref: **NOSB3DoPv8**

EN 13986:2004+A1:2015

0502

03

E1

OSB3

6mm to 32mm

Structural use in humid conditions

Essential characteristics	Performance													
	6 to 10		>10 to <18		18 to 25		>25 to 32		15 T&G 400mm centres		18 T&G 600mm centres		22 T&G 600mm centres	
Thickness range	0	90	0	90	0	90	0	90	0	90	0	90	0	90
<sup>1</sup> Characteristic Strength (N/mm <sup>2</sup> )	18.0	9.0	16.4	8.2	14.8	7.4	NPD	NPD	16.4	8.2	14.8	7.4	14.8	7.4
- Bending														
- Compression $f_c$	15.9	12.9	15.4	12.7	14.8	12.4	NPD	NPD	15.4	12.7	14.8	12.4	14.8	12.4
- Tension $f_t$	9.9	7.2	9.4	7.0	9.0	6.8	NPD	NPD	9.4	7.0	9.0	6.8	9.0	6.8
- Panel Shear $f_v$	6.8		6.8		6.8		NPD		6.8		6.8		6.8	
- Planar shear $f_r$	1.0		1.0		1.0		NPD		1.0		1.0		1.0	
<sup>1</sup> Mean Stiffness values,(MOE) (N/mm <sup>2</sup> )	3800	3000	3800	3000	3800	3000	NPD	NPD	3800	3000	3800	3000	3800	3000
- Tension $E_t$														
- Compression $E_c$	3800	3000	3800	3000	3800	3000	NPD	NPD	3800	3000	3800	3000	3800	3000
- Bending $E_m$	4930	1980	4930	1980	4930	1980	NPD	NPD	4930	1980	4930	1980	4930	1980
- Panel Shear $G_v$	1080		1080		1080		NPD		1080		1080		1080	
- Compression $E_c$	50		50		50		NPD		50		50		50	
Punching Shear Characteristic strength under point load $F_{max,k}$ (kN) (for floors and roofs)	NPD		NPD		NPD		NPD		2.64		4.12		4.96	
Punching Shear Mean stiffness under point load, R (N/mm) (for floors and roofs)	NPD		NPD		NPD		NPD		305		489		770	
Racking resistance(for walls) Characteristic Strength $F_{Rd,max,k}$ (N)	NPD		NPD		NPD		NPD		NPD		NPD		NPD	

<b>Racking resistance (for walls)</b> <b>Mean Stiffness <math>R_{mean}</math> (N/mm)</b>	NPD	NPD	NPD	NPD	NPD	NPD	NPD
<b>Soft Body Impact resistance</b> <b>Floors/Roofs Walls</b>	NPD	NPD	NPD	NPD	Impact Class 1 Pass Roof	Impact Class 1 Pass Floor	Impact Class 1 Pass Floor
<b>Embedment strength <math>f_h</math> (N/mm<sup>2</sup>)</b>	NPD	NPD	NPD	NPD	NPD	NPD	NPD
<b>Reaction to fire</b>  <b>(see notes to table for field of application details and associated documentation references)</b>			<b>Minimum thickness</b>	<b>Class (excluding floorings)<sup>g</sup></b>		<b>Class (Flooring)<sup>h</sup></b>	
	<b>Without an air gap behind the panel<sup>abef</sup></b>		9	D-s2,d0		D <sub>fi</sub> ,s1	
	<b>With a closed or open air gap ≤ 22mm behind the panel<sup>cef</sup></b>		9	D-s2,d2		-	
	<b>Closed air gap behind the panel<sup>def</sup></b>		15	D-s2,d0		D <sub>fi</sub> ,s1	
	<b>With an open air gap behind the panel<sup>def</sup></b>		18	D-s2,d0		D <sub>fi</sub> ,s1	
	<b>Any end use<sup>ef</sup></b>		3	E		E <sub>fi</sub>	
			a -Mounted without an air gap directly against class A1 or A2-s1, d0 products with minimum density 10kg/m <sup>3</sup> or at least class D-s2, d2 products with minimum density 400 kg/m <sup>3</sup> . b -A substrate of cellulose insulation material of at least class E may be included if mounted directly against the wood-based panel, but not for floorings. c -Mounted with an air gap behind. The reverse face of the cavity shall be at least class A2-s1, d0 products with minimum density 10 kg/m <sup>3</sup> . d -Mounted with an air gap behind. The reverse face of the cavity shall be at least class D-s2, d2 products with minimum density 400 kg/m <sup>3</sup> . e -Veneered, phenol- and melamine-faced panels are included for class excl. floorings. f -A vapour barrier with a thickness up to 0,4 mm and a mass up to 200 g/m <sup>2</sup> can be mounted in between the wood-based panel and a substrate if there are no air gaps in between. g -Class Provided for in Table 1 of the Annex to decision 2000/147/EC h -Class Provided for in Table 2 of the Annex to decision 2000/147/EC				
<b>Water vapour permeability <math>\mu</math></b>	NPD	NPD	NPD	NPD	NPD	NPD	NPD
<b>Release of formaldehyde</b>	<b>E1</b>	<b>E1</b>	<b>E1</b>	<b>E1</b>	<b>E1</b>	<b>E1</b>	<b>E1</b>
<b>Release (content) of pentachlorophenol (PCP)</b>	<b>≤5ppm</b>	<b>≤5ppm</b>	<b>≤5ppm</b>	<b>≤5ppm</b>	<b>≤5ppm</b>	<b>≤5ppm</b>	<b>≤5ppm</b>
<b>Airborne sound insulation (surface mass) R (dB)</b>	NPD	NPD	NPD	NPD	NPD	NPD	NPD
<b><sup>3</sup>Sound absorption</b> Frequency range 250Hz to 500Hz ( <b><math>\alpha</math></b> )	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b><sup>3</sup>Sound absorption</b> Frequency range 1000Hz to 2000Hz ( <b><math>\alpha</math></b> )	0.25	0.25	0.25	0.25	0.25	0.25	0.25
<b>Thermal conductivity <math>\lambda</math> (W/m.K)</b>	0.13	0.13	0.13	0.13	0.13	0.13	0.13
<b>Air Permeability <math>V_0</math> (m<sup>3</sup>/h)</b>	NPD	NPD	NPD	NPD	NPD	NPD	NPD
<b>Durability</b>							
<b>Internal bond (N/mm<sup>2</sup>)</b>	0.34	0.32	0.30	0.29	0.32	0.32	0.30
<b>Swelling in thickness (%)</b>	15	15	15	15	15	15	15
<b>Bending strength after cyclic test – major axis (N/mm<sup>2</sup>)</b>	9	8	7	6	8	8	7
<b><sup>4</sup>Mechanical (creep <math>k_{def}</math>) Service class 1</b>	1.5	1.5	1.5	1.5	1.5	1.5	1.5
<b><sup>4</sup>Mechanical (creep <math>k_{def}</math>) Service class 2</b>	2.25	2.25	2.25	2.25	2.25	2.25	2.25
<b>Mechanical (duration of load <math>k_{mod}</math>)</b>	<b>Action Mode</b>						
	<b>Permanent</b>	<b>Long Term</b>	<b>Medium Term</b>	<b>Short Term</b>	<b>Instantaneous</b>		
<b><sup>4</sup>Service class 1</b>	<b>0.4</b>	<b>0.5</b>	<b>0.7</b>	<b>0.9</b>	<b>1.1</b>		
<b><sup>4</sup>Service class 2</b>	<b>0.3</b>	<b>0.4</b>	<b>0.55</b>	<b>0.7</b>	<b>0.9</b>		
<b>Biological</b>	<b>Use classes 1 &amp; 2</b>						

## NOTES TO TABLE

1 Taken from EN 12369-1:2001

2 Reaction to fire classes from Table 1 of Commission Decision 2003/43/EC of January 2003 (OJEU L13 of 18.1.2003) corrected by Corrigendum (OJEU L33 of 8.2.2003) and amended by Commission decision 2007/348/EC of May 2007 (OJEU L131 of 23-05-2007); also reproduced in Table three of EN 13986:2004+A1:2015 for wood-based panels installed according to CEN/TR 12872

3 Taken from Table 10 of EN 13986:2004+A1:2015

4 Taken from Eurocode 5 EN 1995-1-1 2004+A2:2014