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DoP ref: **NOSB3\_UKCA\_DoPv1**

EN 13986:2004+A1:2015

0086

21

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) <i>(for floors and roofs)</i>	NPD		NPD		NPD		NPD		2.64		4.12		4.96	
Punching Shear Mean stiffness under point load, R (N/mm) <i>(for floors and roofs)</i>	NPD		NPD		NPD		NPD		305		489		770	
Racking resistance <i>(for walls)</i> Characteristic Strength $F_{Rd,max,k}$ (N)	NPD		NPD		NPD		NPD		NPD		NPD		NPD	
Racking resistance <i>(for walls)</i> Mean Stiffness $R_{mean}$ (N/mm)	NPD		NPD		NPD		NPD		NPD		NPD		NPD	
Soft Body Impact resistance	NPD		NPD		NPD		NPD		Impact Class		Impact Class		Impact Class	

Floors/Roofs Walls					1 Pass Roof	1 Pass Floor	1 Pass Floor
Embedment strength $f_h$ (N/mm <sup>2</sup> )	NPD	NPD	NPD	NPD	NPD	NPD	NPD
<sup>2</sup> Reaction to fire  (see notes to table for field of application details and associated documentation references)			Minimum thickness	Class (excluding floorings) <sup>g</sup>		Class (Flooring) <sup>h</sup>	
	Without an air gap behind the panel <sup>abef</sup>		9	D-s2,d0		D <sub>fi</sub> ,s1	
	With a closed or open air gap ≤ 22mm behind the panel <sup>cef</sup>		9	D-s2,d2		-	
	Closed air gap behind the panel <sup>def</sup>		15	D-s2,d0		D <sub>fi</sub> ,s1	
	With an open air gap behind the panel <sup>def</sup>		18	D-s2,d0		D <sub>fi</sub> ,s1	
	Any end use <sup>ef</sup>		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				
Water vapour permeability $\mu$	NPD	NPD	NPD	NPD	NPD	NPD	NPD
Release of formaldehyde	E1	E1	E1	E1	E1	E1	E1
Release (content) of pentachlorophenol (PCP)	≤5ppm	≤5ppm	≤5ppm	≤5ppm	≤5ppm	≤5ppm	≤5ppm
Airborne sound insulation (surface mass) R (dB)	NPD	NPD	NPD	NPD	NPD	NPD	NPD
<sup>3</sup> Sound absorption Frequency range 250Hz to 500Hz ( $\alpha$ )	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<sup>3</sup> Sound absorption Frequency range 1000Hz to 2000Hz ( $\alpha$ )	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Thermal conductivity $\lambda$ (W/m.K)	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Air Permeability $V_0$ (m <sup>3</sup> /h)	NPD	NPD	NPD	NPD	NPD	NPD	NPD
<b>Durability</b>							
Internal bond (N/mm <sup>2</sup> )	0.34	0.32	0.30	0.29	0.32	0.32	0.30
Swelling in thickness (%)	15	15	15	15	15	15	15
Bending strength after cyclic test – major axis (N/mm <sup>2</sup> )	9	8	7	6	8	8	7
<sup>4</sup> Mechanical (creep $k_{def}$ ) Service class 1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
<sup>4</sup> Mechanical (creep $k_{def}$ ) Service class 2	2.25	2.25	2.25	2.25	2.25	2.25	2.25
<sup>4</sup> Mechanical (duration of load $k_{mod}$ )	<b>Action Mode</b>						
	Permanent	Long Term	Medium Term	Short Term	Instantaneous		
<sup>4</sup> Service class 1	0.4	0.5	0.7	0.9	1.1		
<sup>4</sup> Service class 2	0.3	0.4	0.55	0.7	0.9		
Biological	Use classes 1 & 2						

## 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