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DoP ref: **NP4LP\_UKCA\_DoPv3**

EN13986:2004 +A1:2015

1224

21

E1

P4

10mm to 38mm

Structural use in dry conditions

Essential characteristics	Performance
	Thickness(mm)
	18mm 1220x0320/0325mm T&G 2 edges
<sup>1</sup> Characteristic Strength (N/mm <sup>2</sup> )	
- Bending $f_m$	12.5
- Compression $f_c$	11.1
- Tension $f_t$	7.9
- Panel Shear $f_v$	6.1
- Planar shear $f_r$	1.6
<sup>1</sup> Mean Stiffness (MOE) (N/mm <sup>2</sup> )	
- Tension $E_t$	1700
- Compression $E_c$	1700
- Bending $E_m$	2900
- Panel Shear $G_v$	830
<b>Punching Shear Characteristic strength under point load</b> <b>F<sub>max,k</sub> (kN)</b> <i>(for floors and roofs)</i>	NPD
<b>Punching Shear Mean stiffness under point load, R<sub>mean</sub></b> <b>(N/mm)</b> <i>(for floors and roofs)</i>	NPD
<b>Racking resistance (for walls)</b> <b>Characteristic Strength F<sub>Rd,max,k</sub> (N)</b>	NPD
<b>Racking resistance (for walls)</b> <b>Mean Stiffness R<sub>mean</sub> (N/mm)</b>	NPD
<b>Soft Body Impact resistance</b> <b>Floor/roofs</b> <b>Walls.</b>	NPD
<b>Embedment Strength f<sub>h</sub> (N/mm<sup>2</sup>)</b>	NPD

<b><sup>2</sup>Reaction to fire</b>  (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>
	<b>Without an air gap behind the panel</b> <sup>abef</sup>	9	D-s2,d0	D <sub>fl</sub> ,s1
	<b>With a closed or open air gap ≤ 22mm behind the panel</b> <sup>cef</sup>	9	D-s2,d2	-
	<b>Closed air gap behind the panel</b> <sup>def</sup>	15	D-s2,d0	D <sub>fl</sub> ,s1
	<b>With an open air gap behind the panel</b> <sup>def</sup>	18	D-s2,d0	D <sub>fl</sub> ,s1
	<b>Any end use</b> <sup>ef</sup>	3	E	E <sub>fl</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			

Essential characteristics	Performance				
	<b>Thickness(mm)</b>				
	<b>18mm 1220x0320-5mm T&amp;G 2 edges</b>				
Water vapour permeability $\mu$	NPD				
Release of formaldehyde	E1				
Release (content) of pentachlorophenol (PCP)	≤5ppm				
Airborne sound insulation (surface mass) R (dB)	NPD				
<sup>3</sup> Sound absorption Frequency range 250Hz to 500Hz ( $\alpha$ )	0.1				
<sup>3</sup> Sound absorption Frequency range 1000Hz to 2000Hz ( $\alpha$ )	0.25				
Thermal conductivity $\lambda$ (W/m.K)	NPD				
Air Permeability V <sub>0</sub> (m <sup>3</sup> /h)	NPD				
<b>Durability</b>					
Internal bond (N/mm <sup>2</sup> )	0.35				
Swelling in thickness (%)	15				
<sup>4</sup> Mechanical (creep k <sub>def</sub> ) Service class 1	2.25				
Mechanical (duration of load k <sub>mod</sub> )	<b>Action Mode</b>				
	Permanent	Long Term	Medium Term	Short Term	Instantaneous
Service Class 1	<b>0.30</b>	<b>0.45</b>	<b>0.65</b>	<b>0.85</b>	<b>1.1</b>
Biological	<b>Use classes 1</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