



Norbord Europe Ltd
Station Road
Cowie
Stirling
Scotland
FK7 7BQ

DoP ref: **NP5DoPv1**

EN 13986:2004

1224

04

E1

P5

8mm to 38mm

Structural use in humid conditions

Essential characteristics	Performance										Harmonised technical specification
	Thickness(mm)										
	>6 to 10	>10 to 13	>13 to 20	>20 to 25	>25 to 32	>32 to 40		18 T&G 400 centres	22 T&G 600 centres		EN13986:2004
Characteristic Strength (N/mm^2)											
- Bending f_m	15.0	15.0	13.3	11.7	10.0	8.3		13.3	11.7		
- Compression f_c	12.7	12.7	11.8	10.3	9.8	8.5		11.8	10.3		
- Tension f_t	9.4	9.4	8.5	7.4	6.6	5.6		8.5	7.4		
- Panel Shear f_v	7.0	7.0	6.5	5.9	5.2	4.8		6.5	5.9		
- Planar shear f_r	1.9	1.9	1.7	1.5	1.3	1.2		1.7	1.5		
Mean Stiffness (MOE) (N/mm^2)											
- Tension E_t	2000	2000	1900	1800	1500	1400		1900	1800		
- Compression E_c	2000	2000	1900	1800	1500	1400		1900	1800		
- Bending E_m	3500	3500	3300	3000	2600	2400		3300	3000		
- Panel Shear G_v	960	960	930	860	750	690		930	860		
*Characteristic Point load $F_{max,k}$ (kN) (for floors and roofs)	NPD	NPD	NPD	NPD	NPD	NPD		5.4	5.4		
Point load mean stiffness (N/mm) (for floors and roofs)	NPD	NPD	NPD	NPD	NPD	NPD		840	560		
*Characteristic Point load serviceability $F_{ser,k}$ (kN) (for floors and roofs)	NPD	NPD	NPD	NPD	NPD	NPD		4.3	4.3		
Racking resistance (for walls)	NPD	NPD	NPD	NPD	NPD	NPD		NPD	NPD		
Soft Body Impact resistance	NPD	NPD	NPD	NPD	NPD	NPD		Pass Floor	Pass Floor		

Floor/roofs Walls										
Reaction to fire	NPD	D-s2,d0	D-s2,d0	D-s2,d0	D-s2,d0	D-s2,d0		DfL-s1	DfL-s1	
Water vapour permeability μ	NPD	NPD	NPD	NPD	NPD	NPD		NPD	NPD	
Release of formaldehyde	E1	E1	E1	E1	E1	E1		E1	E1	
Release (content) of pentachlorophenol (PCP)	≤5ppm	≤5ppm	≤5ppm	≤5ppm	≤5ppm	≤5ppm		≤5ppm	≤5ppm	
Airborne sound insulation (surface mass) (R)	NPD	NPD	NPD	NPD	NPD	NPD		NPD	NPD	
Sound absorption Frequency range 250Hz to 500Hz (α)	0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	
Sound absorption Frequency range 1000Hz to 2000Hz (α)	0.25	0.25	0.25	0.25	0.25	0.25		0.25	0.25	
Thermal conductivity λ	NPD	NPD	NPD	NPD	NPD	NPD		NPD	NPD	
Durability										
Internal bond (N/mm ²)	0.45	0.45	0.45	0.40	0.35	0.30		0.45	0.40	
Swelling in thickness (%)	13	11	10	10	10	9		10	10	
Internal bond after cyclic test (N/mm ²)	0.25	0.25	0.22	0.20	0.17	0.15		0.22	0.20	
Swelling in thickness after cyclic test (%)	12	12	12	11	10	9		12	11	
Moisture resistance Internal bond after boil test (%)	0.15	0.15	0.14	0.12	0.11	0.10		0.14	0.12	
Mechanical (duration of load k_{def}) service class 1	2.25	2.25	2.25	2.25	2.25	2.25		2.25	2.25	
Mechanical (duration of load k_{def}) service class 2	3	3	3	3	3	3		3	3	
Mechanical (creep k_{mod}) Service class1- medium term action	0.65	0.65	0.65	0.65	0.65	0.65		0.65	0.65	
Mechanical (creep k_{mod}) Service class 2- medium term action	0.45	0.45	0.45	0.45	0.45	0.45		0.45	0.45	
Biological	Use classes 1 & 2									
*’characteristic’ means lower 5 th percentile calculated according to EN 1058										