

Declaration of Performance - Plywood

No. KKN-04-001-CPR / 2412-CPR-1301-02



1. Product type

Koskisen birch or combi structural plywood

- uncoated or coated

2. Intended use of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer

Structural components in dry or humid conditions

EN 636-2 S

- for internal structural use in dry conditions
- for internal or protected external structural use in humid conditions

EN 636-3 S

- for internal structural use in dry conditions
- for internal or protected external structural use in humid conditions
- for external structural use with certain type of coating and edge protection

3. Name and address of the manufacturer

Koskisen Oy
Plywood mill
Tehdastie 2
16600 Järvelä
Finland
www.koskisen.com

4. System of assessment and verification of constancy of performance

AVCP system 2+

5. Construction product covered by a harmonised standard

Finotrol Oy, notified production control certification body No. 2412 performed initial inspections of the manufacturing plants and factory production control and performs continuous surveillance, assessments, and evaluation of factory production control under system AVCP 2+ and issued the certificate of conformity of the factory production control: **2412-CPR-1301-02**. Harmonised standard EN 13986:2004 + A1:2015.



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6. Declared performance

KOSKISEN BIRCH PLYWOOD																			
Nominal thickness	Number of plies	Characteristic Strength						Mean Modulus of Elasticity				Characteristic Strength				Mean Modulus of Rigidity			
		Bending N/mm ²		Compression N/mm ²		Tension strength N/mm ²		Bending N/mm ²		Compression and tension N/mm ²		Panel shear N/mm ²		Planar shear N/mm ²		Panel shear N/mm ²		Planar N/mm ²	
		f _m	f _{m⊥}	f _c	f _{c⊥}	f _t	f _{t⊥}	E _m	E _{m⊥}	E _{t,c}	E _{t,c⊥}	f _v	f _{v⊥}	f _r	f _{r⊥}	G _v	G _{v⊥}	G _r	G _{r⊥}
4	3	65.9	10.6	31.8	20.2	45.8	29.2	16471	1029	10694	6809	9.5	9.5	2.8	NPD	620	620	169	NPD
6,5	5	50.9	29.0	29.3	22.8	42.2	32.8	12737	4763	9844	7656			3.2	1.8			169	123
9	7	45.6	32.1	28.3	23.7	40.8	34.2	11395	6105	9511	7989			2.7	2.4			206	155
12	9	42.9	33.2	27.7	24.3	40.0	35.0	10719	6781	9333	8167			2.8	2.2			207	170
15	11	41.3	33.8	27.4	24.6	39.5	35.5	10316	7184	9223	8277			2.6	2.4			207	178
18	13	40.2	34.1	27.2	24.8	39.2	35.8	10048	7452	9147	8352			2.7	2.3			206	183
21	15	39.4	34.3	27.0	25.0	39.0	36.0	9858	7642	9093	8407			2.6	2.4			206	186
24	17	38.9	34.4	26.9	25.1	38.8	36.2	9717	7783	9052	8448			2.6	2.4			206	189
27	19	38.4	34.5	26.8	25.2	38.7	36.3	9607	7893	9019	8481			2.6	2.4			205	190
30	21	38.1	34.6	26.7	25.3	38.5	36.5	9519	7981	8993	8507			2.6	2.4			205	192
35	25	37.6	34.7	26.6	25.4	38.4	36.6	9389	8111	8953	8547			2.6	2.4			204	193
40	29	37.2	34.7	26.5	25.5	38.3	36.8	9296	8204	8925	8575			2.6	2.4			204	195
45	33	37.0	34.7	26.5	25.5	38.2	36.8	9259	8241	8914	8586			2.6	2.5			203	195
50	37	36.8	34.8	26.4	25.6	38.1	36.9	9198	8302	8895	8605			2.5	2.5			203	196

KOSKISEN COMBI PLYWOOD																			
Nominal thickness	Number of plies	Characteristic Strength						Mean Modulus of Elasticity				Characteristic Strength				Mean Modulus of Rigidity			
		Bending N/mm ²		Compression N/mm ²		Tension strength N/mm ²		Bending N/mm ²		Compression and tension N/mm ²		Panel shear N/mm ²		Planar shear N/mm ²		Panel shear N/mm ²		Planar N/mm ²	
		f _m	f _{m⊥}	f _c	f _{c⊥}	f _t	f _{t⊥}	E _m	E _{m⊥}	E _{t,c}	E _{t,c⊥}	f _v	f _{v⊥}	f _r	f _{r⊥}	G _v	G _{v⊥}	G _r	G _{r⊥}
6,5	5	50.8	29.0	24.5	22.8	19.1	32.8	12690	4763	8859	7656	7.0	7.0	3.2	1.1	600	600	169	41
9	7	43.9	32.1	22.5	23.7	17.5	34.2	10983	6105	8141	7989			2.7	1.5	593	593	206	52
12	9	40.0	33.2	21.5	24.3	16.7	35.0	10012	6781	7758	8167			2.8	1.4	589	589	207	57
15	11	37.5	33.8	20.8	24.6	16.2	35.5	9386	7184	7520	8277			2.6	1.5	586	586	207	59
18	13	35.8	34.1	20.4	24.8	15.8	35.8	8950	7452	7358	8352			2.7	1.5	584	584	206	61
21	15	34.5	34.3	20.0	25.0	15.6	36.0	8628	7642	7240	8407			2.6	1.6	583	583	206	62
24	17	32.9	34.4	19.8	25.1	15.4	36.2	8381	7783	7151	8448			2.6	1.5	582	582	206	63
27	19	31.2	34.5	19.6	25.2	16.3	36.3	8185	7893	7081	8481			2.6	1.6	581	581	205	63
30	21	29.9	34.6	19.5	25.3	15.1	36.5	8026	7981	7024	8507			2.6	1.5	581	581	205	64



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Essential characteristics	Performance		Standard
Bonding quality (EN 314-2)	Class 3, exterior		EN 13986
Release of formaldehyde	E1		
Water vapour permeability Uncoated density 680 kg/m ³	Wet cup	88 μ	
	Dry cup	218 μ	
Thermal conductivity	Birch	0,17 W/mK	
	Combi	0,14 W/mK	
Sound absorption	0,10 α (250 Hz – 500 Hz) 0,30 α (1 000 Hz – 2 000 Hz)		
Airborne sound insulation	NPD		
Impact resistance	NPD		
Strength and stiffness under point load	NPD		
Mechanical resistance	K _{mod}	According to EN 1995-1-1	
	K _{def}		
Biological durability (EN 335)	Uncoated or coated without edge sealing	Use class 2	
	Coated and edge sealed	Use class 3	
Content of pentachlorophenol (PCP)	≤ 5 ppm		
Characteristic embedment strength	According to EN 1995-1-1: characteristic density (P _k) 630 kg/m ³		
Racking resistance	According to EN 1995-1-1: characteristic embedment strength, see above		

Reaction to fire

End use condition ⁶	Minimum thickness (mm)	Class ⁷ (excluding floorings)	Class ⁸ (floorings)
Without an air gap behind the wood-based panel ^{1 2 5}	9	D-s2, d0	D _{fi} -s1
With a closer or an open-air gap not more than 22 mm behind the wood-based panel ^{3 5}	9	D-s2, d2	-
With a closed air gap behind the wood-based panel ^{4 5}	15	D-s2, d1	D _{fi} -s1
With an open-air gap behind the wood-based panel ^{4 5}	18	D-s2, d0	D _{fi} -s1
Any ⁵	9	E	E _{fi}
With an air gap behind the wood-based panel	18	-	B _{fi} -s1 ¹⁰
Without an air gap behind the wood-based panel ⁹	9	-	B _{fi} -s1 ¹⁰

- 1) Mounted without an air gap directly against class A1 or A2-s1, d0 products with minimum density 10kg/m³ or at least class D-s2, d2 products with minimum density 400 kg/m³.
- 2) 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.
- 3) 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/m³.
- 4) 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/m³.
- 5) Veneered, phenol- and melamine-faced panels are included for class excl. floorings.
- 6) A vapour barrier with a thickness up to 0,4 mm and a mass up to 200 g/m² can be mounted in between the wood-based panel and a substrate if there are no air gaps in between.
- 7) Class as provided for in Table 1 of the Annex to Decision 2000/147/EC.
- 8) Class as provided for in Table 2 of the Annex to Decision 2000/147/EC.
- 9) Mounted directly against a wood-based substrate material with a density of at least 470 kg/m³ or a substrate of class A1 or A2-s1, d0.
- 10) A wood-based panels with ≤440 g/m² phenolic or melamine coating.

The performance of the product identified in point 1. is in conformity with the declared performance in point 6. This declaration of performance is issued in accordance with Regulation (EU) N:o 305/2011 and is under the sole responsibility of the manufacturer identified in point 3.

Signed for and behalf of the manufacturer 08.04.2022



Santtu Eilamo

Quality Manager, Panel Industry



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