

DECLARATION OF PERFORMANCE, UPM PLYWOOD

No. UPM022CPR

1. Unique identification code of the product-type:
Structural birch plywood, uncoated, 12–30 mm
2. Intended uses:
For internal use as a structural component in dry conditions, EN 636-1
For protected external use as a structural component in humid conditions, EN 636-2
3. Manufacturer:
WISA®
UPM Plywood Oy
P.O. Box 203
FI-15141 Lahti, Finland
www.wisaplywood.com
5. System of AVCP:
AVCP system 2+
- 6a. Harmonised standard:
EN 13986:2004 + A1:2015

Notified body:

Inspecta Sertifiointi Oy No. 0416 has performed the initial inspection of the manufacturing plant and a factory production control and continuous surveillance, assessment and evaluation of factory production control and issued the certificates of conformity of the factory production control 0416-CPR-7111 (Savonlinna).

7. Declared performance:

Essential characteristics	Performance	Harmonised standard
Point load strength and stiffness	NPD	EN 13986:2004+A1:2015
Racking resistance	Calculation according to EN 1995-1-1	
Impact resistance	NPD	
Water vapour permeability μ	Wet 90, dry 220	
	Mean density 680 kg/m ³	
Release of formaldehyde	E1	
Content of pentachlorophenol (PCP)	≤ 5 ppm	
Airborne sound insulation	NPD	
Sound absorption α	0,10/0,30	
Thermal conductivity λ	0,17 W/mK	
Embedment strength	Calculation according to EN 1995-1-1	
Air permeability	NPD	
Bonding quality (acc. to EN 314-2)	Class 3	
Biological durability	Use class 2	

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)}	12	D-s2, d0	D _{fi} -s1
With a closed or an open air gap not more than 22 mm behind the wood-based panel ^{(3), (5)}	12	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

⁽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.

⁽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

Nominal thickness		12	15	18	21	24	27	30	
Number of plies		9	11	13	15	17	19	21	
Essential characteristics		Performance							
Characteristic bending strength N/mm ²	$f_{m\parallel}$	56,1	52,7	50,3	48,4	46,7	45,5	44,5	Harmonised standard EN 13986:2004+A1:2015
	$f_{m\perp}$	18,0	20,7	22,7	24,1	25,2	26,0	26,7	
Characteristic compression strength N/mm ²	$f_{c\parallel}$	33,8	32,3	31,3	30,6	30,0	29,6	29,3	
	$f_{c\perp}$	18,2	19,7	20,7	21,4	22,0	22,4	22,8	
Characteristic tension strength	$f_{t\parallel}$	48,8	46,6	45,2	44,1	43,3	42,7	42,2	
	$f_{t\perp}$	26,3	28,4	29,8	30,9	31,7	32,3	32,8	
Mean MOE in bending N/mm ²	$E_{m\parallel}$	12537	11803	11244	10808	10459	10175	9938	
	$E_{m\perp}$	2338	3072	3631	4067	4416	4701	4937	
Mean MOE in compression and tension N/mm ²	$E_{t,c\parallel}$	11375	10878	10540	10294	10108	9962	9844	
	$E_{t,c\perp}$	6125	6622	6960	7206	7392	7538	7656	
Char. panel shear N/mm ²	$f_{v\parallel}$	9,5			9,5				
	$f_{v\perp}$	9,5			9,5				
Char. Planar shear N/mm ²	$f_{r\parallel}$	2,7	2,8	2,7	2,8	2,7	2,7	2,7	
	$f_{r\perp}$	1,8	1,8	2,0	2,0	2,1	2,1	2,2	
Mean MOR in panel shear N/mm ²	$G_{v\parallel}$	620			620				
	$G_{v\perp}$	620			620				
Mean MOR in planar shear N/mm ²	$G_{r\parallel}$	222	219	217	215	214	213	213	
	$G_{r\perp}$	119	138	150	158	164	168	172	
Strength and stiffness under point load		NPD							
Impact resistance		NPD							
k_{mod} and k_{def} values according to EN 1995-1-1									

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Lahti, Finland, September 11th, 2024



Timo Lindroos, Product Manager
UPM Plywood