

DECLARATION OF PERFORMANCE, UPM PLYWOOD

No. UPM023CPR

1. Unique identification code of the product-type:
Structural plywood with birch face and spruce and birch mixed core, uncoated or coated,
9–21 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
For external use as a structural component with coating and edge sealing, EN 636-3
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-7110 (Pellos), 0416-CPR7111 (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 80, dry 210 (uncoated)	
	Mean density 560 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	0,15 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 (uncoated)	
	Use class 3 (coated and edge sealed)	

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 _{fl} -s1
With a closed 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 _{fl} -s1
With an open air gap behind the wood-based panel ^{(4), (5)}	18	D-s2, d0	D _{fl} -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		9	12	15	18	21
Number of plies		5	7	8	11	11
Essential characteristics		Performance				
Characteristic bending strength N/mm ²	$f_{m\parallel}$	34,9	41,5	28,3	30,1	26,1
	$f_{m\perp}$	16,7	25,9	18,5	17,1	18,9
Characteristic compression strength N/mm ²	$f_{c\parallel}$	21,3	21,7	16,9	22,8	19,5
	$f_{c\perp}$	17,7	18,8	20,3	16,9	18,8
Characteristic tension strength N/mm ²	$f_{t\parallel}$	30,7	13,0	24,4	32,9	28,1
	$f_{t\perp}$	10,6	27,2	12,2	10,1	11,3
Mean MOE in bending N/mm ²	$E_{m\parallel}$	9314	9675	7050	8016	6968
	$E_{m\perp}$	5014	5595	6337	5988	6774
Mean MOE in compression and tension N/mm ²	$E_{t,c\parallel}$	6545	8414	5195	7011	6000
	$E_{t,c\perp}$	7091	5793	8104	6742	7500
Char. panel shear N/mm ²	$f_{v\parallel}$	3,5	3,5	3,5		
	$f_{v\perp}$	3,5	3,5	3,5		
Char. Planar shear N/mm ²	$f_{r\parallel}$	1,2	2,7	0,6	1,0	
	$f_{r\perp}$	1,9	0,9	2,4	2,4	
Mean MOR in panel shear N/mm ²	$G_{v\parallel}$	350	350	350		
	$G_{v\perp}$	350	350	350		
Mean MOR in planar shear N/mm ²	$G_{r\parallel}$	40	285	35		
	$G_{r\perp}$	203	33	200		
Strength and stiffness under point load	NPD					
Impact resistance	NPD					
k _{mod} and k _{def} values according to EN 1995-1-1						

Harmonised standard EN 13986:2004+A1:2015

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 7th, 2020



Sirku Salmikuukka, Product Manager
UPM Plywood