

DECLARATION OF PERFORMANCE, UPM PLYWOOD

No. UPM998CPR

1. Unique identification code of the product-type:
Structural spruce plywood, uncoated or coated, 12–24 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:
UPM Plywood Oy
P.O. Box 203
FI-15141 Lahti, Finland
www.upmplywood.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 certificate of conformity of the factory production control 0416-CPR-7110.

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 vapor permeability μ	Wet 66, dry 190 (uncoated)	
	Mean density 460kg/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	0,13 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 according to EN 13986:2004+A1:2015			
End use condition	Minimum thickness (mm)	Class (excluding floorings)	Class (floorings)
Without an air gap behind the wood-based panel	12	D-s2, d0	D _{fl} -s1
With a closed or an open air gap not more than 22 mm behind the wood-based panel	12	D-s2, d2	-
With a closed air gap behind the wood-based panel	15	D-s2, d1	D _{fl} -s1
With an open air gap behind the wood-based panel	18	D-s2, d0	D _{fl} -s1

Nominal thickness		12	15	18	21	24
Number of plies		5	5	7	7	9
Essential characteristics						
Characteristic bending strength N/mm ²	$f_{m \parallel}$	22,8	23,0	20,4	18,9	19,4
	$f_{m \perp}$	11,4	11,2	13,0	14,3	13,1
Characteristic compression strength N/mm ²	$f_{c \parallel}$	17,4	17,5	16,7	16,0	17,0
	$f_{c \perp}$	12,6	12,5	13,3	14,0	13,0
Characteristic tension strength N/mm ²	$f_{t \parallel}$	10,5	10,5	10,0	9,6	10,2
	$f_{t \perp}$	7,5	7,5	8,0	8,4	7,8
Mean MOE in bending N/mm ²	$E_{m \parallel}$	9123	9201	8170	7547	7751
	$E_{m \perp}$	2876	2799	3830	4453	4249
Mean MOE in compression and tension N/mm ²	$E_{t,c \parallel}$	6968	7013	6682	6408	6800
	$E_{t,c \perp}$	5032	4987	5318	5592	5200
Char. panel shear N/mm ²	$f_{v \parallel}$	3,5				
	$f_{v \perp}$	3,5				
Char. Planar shear N/mm ²	$f_r \parallel$	1,0				
	$f_r \perp$	0,6		0,8		
Mean MOR in panel shear N/mm ²	$G_{v \parallel}$	350				
	$G_{v \perp}$	350				
Mean MOR in planar shear N/mm ²	$G_r \parallel$	50				
	$G_r \perp$	30		40		
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, May 1st, 2024



Riku Härkönen, Product Manager
UPM Plywood

Appendix 1, UPM998CPR

Characteristic values for static concentrated load, mean stiffness and soft body impact class accordance with EN 12871: 2013 for structural roof and floor decking.

Concentrated load - Bending

Thickness (Nominal) mm	Veneers/ layers	Maximum Span mm	Characteristic strength		Mean stiffness R_{mean} N/mm	Impact class
			Serviceability limit state $F_{ser,k}$ N	Maximum load $F_{max,k}$ N		
Floor						
15	5/5	400	5340	6390	450	Class I and Class II
18*	7/7	600	4720	6000	400	Class I and Class II
21	7/7	600	3650	4200	396	Class I and Class II
21*	7/7	815	4539	6739	410	Class I and Class II
24	9/9	400	7000	9680	1258	Class I and Class II
24	9/9	600	7000	8650	663	Class I and Class II
24*	9/9	815	7101	8000	607	Class I and Class II
Roof						
12	5/5	600	3333	3667	158	Class I and Class II
15	5/5	800	2778	3756	134	Class I and Class II
18	7/7	1200	3378	4056	90	Class I and Class II
21	7/7	1200	3500	4600	140	Class I and Class II

* All edges shall be supported.