

**DECLARATION OF PERFORMANCE, UPM PLYWOOD**

**No. UPM021CPR**

1. Unique identification code of the product-type:  
Structural spruce plywood, uncoated, 15–22 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-Kymmene Wood 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.

7. Declared performance:

Essential characteristics	Performance	Harmonised standard
Reaction to fire	Dfl-s1	EN 13986:2004+A1:2015
Water vapour permeability $\mu$	wet 66, dry 190 (uncoated)	
Release of formaldehyde	E1	
Content of pentachlorophenol (PCP)	Does not contain	
Airborne sound insulation	NPD	
Sound absorption $\alpha$	0,10/0,30	
Thermal conductivity $\lambda$	0,13	
Bonding quality (acc. to EN 314-2)	Class 3	
Biological durability	Use class 2	
Mean density $\text{kg/m}^3$	460	

## 7. Declared performance

Nominal thickness		15 unsanded	18	18 unsanded	19	21	22		
Number of plies		5	7	7	6	8	7		
Essential characteristics		Performance							Harmonised standard EN 13986:2004+A1:2015
Characteristic bending strength N/mm <sup>2</sup>	f <sub>m  </sub>	23,8	27,5	21,3	23,4	20,8	20,6		
	f <sub>m⊥</sub>	10,4	5,7	12,1	10,2	12,9	12,8		
Characteristic compression strength N/mm <sup>2</sup>	f <sub>c  </sub>	18,0	21,1	17,1	21,8	16,0	16,8		
	f <sub>c⊥</sub>	12,0	8,9	12,9	8,2	14,0	13,2		
Characteristic tension strength N/mm <sup>2</sup>	f <sub>t  </sub>	10,8	12,7	10,3	13,1	9,6	10,1		
	f <sub>t⊥</sub>	7,2	5,3	7,7	4,9	8,4	7,9		
Mean MOE in bending N/mm <sup>2</sup>	E <sub>m  </sub>	9504	10994	8536	9359	8319	8243		
	E <sub>m⊥</sub>	2496	1006	3464	2641	3681	3757		
Mean MOE in compression and tension N/mm <sup>2</sup>	E <sub>t,c  </sub>	7200	8455	6857	8733	6408	6716		
	E <sub>t,c⊥</sub>	4800	3545	5143	3267	5592	5284		
Char. panel shear N/mm <sup>2</sup>	f <sub>v  </sub>	3,5	3,5	3,5	3,5	3,5	3,5		
	f <sub>v⊥</sub>	3,5	3,5	3,5	3,5	3,5	3,5		
Char. Planar shear N/mm <sup>2</sup>	f <sub>r  </sub>	1,1	1,0	1,0	1,2	1,0	1,0		
	f <sub>r⊥</sub>	0,6	0,4	0,8	0,5	0,8	0,8		
Mean MOR in panel shear N/mm <sup>2</sup>	G <sub>v  </sub>	350	350	350	350	350	350		
	G <sub>v⊥</sub>	350	350	350	350	350	350		
Mean MOR in planar shear N/mm <sup>2</sup>	G <sub>r  </sub>	51	59	52	89	48	52		
	G <sub>r⊥</sub>	28	21	36	22	41	37		
Strength and stiffness under point load	NPD								
Impact resistance	NPD								
K <sub>mod</sub> and k <sub>def</sub> 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, November 11th, 2016



Riku Härkönen, Product Manager  
UPM Plywood