

## DECLARATION OF PERFORMANCE, UPM PLYWOOD

**No. UPM001CPR**

1. Unique identification code of the product-type:  
Structural spruce plywood, uncoated or coated, 9–50 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 certificate of conformity of the factory production control 0416-CPR-7110 & 0416-CPR-7109.

7. Declared performance:

| Essential characteristics          | Performance                          | Harmonised standard   |
|------------------------------------|--------------------------------------|-----------------------|
| Reaction to fire                   | D-s2,d0                              | EN 13986:2004+A1:2015 |
|                                    | Dfl-s1 (flooring)                    |                       |
| 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 (uncoated)               |                       |
|                                    | Use class 3 (coated and edge sealed) |                       |
| Mean density kg/m <sup>3</sup>     | 460                                  |                       |

## 7. Declared performance

|                                                                       |                    |             |      |      |      |      |      |      |      |      |      |                                           |
|-----------------------------------------------------------------------|--------------------|-------------|------|------|------|------|------|------|------|------|------|-------------------------------------------|
| Nominal thickness                                                     |                    | 9           | 12   | 15   | 18   | 21   | 24   | 27   | 30   | 40   | 50   |                                           |
| Number of plies                                                       |                    | 3           | 5    | 5    | 7    | 7    | 9    | 9    | 11   | 13   | 17   |                                           |
| Essential characteristics                                             |                    | Performance |      |      |      |      |      |      |      |      |      | Harmonised standard EN 13986:2004+A1:2015 |
| Characteristic bending strength N/mm²                                 | f <sub>m  </sub>   | 28,7        | 22,8 | 23,0 | 20,4 | 18,9 | 19,4 | 19,3 | 18,7 | 16,8 | 15,6 |                                           |
|                                                                       | f <sub>m⊥</sub>    | 3,8         | 11,4 | 11,2 | 13,0 | 14,3 | 13,1 | 13,8 | 13,3 | 14,9 | 15,9 |                                           |
| Characteristic compression strength N/mm²                             | f <sub>c  </sub>   | 19,3        | 17,4 | 17,5 | 16,7 | 16,0 | 17,0 | 15,5 | 17,2 | 15,5 | 14,7 |                                           |
|                                                                       | f <sub>c⊥</sub>    | 10,7        | 12,6 | 12,5 | 13,3 | 14,0 | 13,0 | 14,5 | 12,8 | 14,5 | 15,3 |                                           |
| Characteristic tension strength N/mm²                                 | f <sub>t  </sub>   | 11,6        | 10,5 | 10,5 | 10,0 | 9,6  | 10,2 | 9,3  | 10,3 | 9,3  | 8,8  |                                           |
|                                                                       | f <sub>t⊥</sub>    | 6,4         | 7,5  | 7,5  | 8,0  | 8,4  | 7,8  | 8,7  | 7,7  | 8,7  | 9,2  |                                           |
| Mean MOE in bending N/mm²                                             | E <sub>m  </sub>   | 11461       | 9123 | 9201 | 8170 | 7547 | 7751 | 7702 | 7479 | 6723 | 6227 |                                           |
|                                                                       | E <sub>m⊥</sub>    | 539         | 2876 | 2799 | 3830 | 4453 | 4249 | 4298 | 4521 | 5277 | 5773 |                                           |
| Mean MOE in compression and tension N/mm²                             | E <sub>t,c  </sub> | 7733        | 6968 | 7013 | 6682 | 6408 | 6800 | 6182 | 6868 | 6211 | 5880 |                                           |
|                                                                       | E <sub>t,c⊥</sub>  | 4267        | 5032 | 4987 | 5318 | 5592 | 5200 | 5818 | 5132 | 5789 | 6120 |                                           |
| Char. panel shear N/mm²                                               | f <sub>v  </sub>   | 3,5         | 3,5  | 3,5  |      |      |      |      |      |      |      |                                           |
|                                                                       | f <sub>v⊥</sub>    | 3,5         | 3,5  | 3,5  |      |      |      |      |      |      |      |                                           |
| Char. Planar shear N/mm²                                              | f <sub>r  </sub>   | 1           | 1    | 1    |      |      |      |      |      |      |      |                                           |
|                                                                       | f <sub>r⊥</sub>    | NPD         | 0,6  | 0,8  |      |      |      |      |      |      |      |                                           |
| Mean MOR in panel shear N/mm²                                         | G <sub>v  </sub>   | 350         | 350  | 350  |      |      |      |      |      |      |      |                                           |
|                                                                       | G <sub>v⊥</sub>    | 350         | 350  | 350  |      |      |      |      |      |      |      |                                           |
| Mean MOR in planar shear N/mm²                                        | G <sub>r  </sub>   | 45          | 50   | 50   |      |      |      |      |      |      |      |                                           |
|                                                                       | G <sub>r⊥</sub>    | NPD         | 30   | 40   |      |      |      |      |      |      |      |                                           |
| 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 |                    |             |      |      |      |      |      |      |      |      |      |                                           |

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, February 1, 2018



Riku Härkönen, Product Manager  
UPM Plywood