

## DECLARATION OF PERFORMANCE, UPM PLYWOOD

**No. UPM006CPR**

1. Unique identification code of the product-type:  
Structural spruce plywood, uncoated, 18–22 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 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.

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 kg/m <sup>3</sup>     | 460                        |                       |

## 7. Declared performance

|   |                    |             |      |
|---|--------------------|-------------|------|
| Nominal thickness                                       |                    | 18          | 22   |
| Number of plies   |                    | 7           | 9    |
| Essential characteristics                               |                    | Performance |      |
| Characteristic bending strength N/mm <sup>2</sup>       | $f_{m\parallel}$   | 20,2        | 19,1 |
|   | $f_{m\perp}$       | 12,7        | 13,6 |
| Characteristic compression strength N/mm <sup>2</sup>   | $f_{c\parallel}$   | 17,1        | 16,3 |
|   | $f_{c\perp}$       | 12,9        | 13,7 |
| Characteristic tension strength N/mm <sup>2</sup>       | $f_{t\parallel}$   | 10,3        | 9,8  |
|   | $f_{t\perp}$       | 7,7         | 8,2  |
| Mean MOE in bending N/mm <sup>2</sup>                   | $E_{m\parallel}$   | 8131        | 7658 |
|   | $E_{m\perp}$       | 3866        | 4342 |
| Mean MOE in compression and tension N/mm <sup>2</sup>   | $E_{t,c\parallel}$ | 6857        | 6526 |
|   | $E_{t,c\perp}$     | 5143        | 5474 |
| Char. panel shear N/mm <sup>2</sup>                     | $f_{v\parallel}$   | 3,5         |      |
|   | $f_{v\perp}$       | 3,5         |      |
| Char. Planar shear N/mm <sup>2</sup>                    | $f_{r\parallel}$   | 1,0         |      |
|   | $f_{r\perp}$       | 0,8         |      |
| Mean MOR in panel shear N/mm <sup>2</sup>               | $G_{v\parallel}$   | 350         |      |
|   | $G_{v\perp}$       | 350         |      |
| Mean MOR in planar shear N/mm <sup>2</sup>              | $G_{r\parallel}$   | 54          | 52   |
|   | $G_{r\perp}$       | 36          | 42   |
| Strength and stiffness under point load                 | Appendix 1         |             |      |
| Impact resistance                                       | Appendix 1         |             |      |
| $k_{mod}$ 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, February 1st, 2017



Riku Härkönen, Product Manager  
UPM Plywood

## CONCENTRATED POINT LOAD OF WISA®-SPRUCEFLOOR PLYWOOD

in accordance with Eurocode 5

The characteristic values are for a static concentrated load and mean stiffness according to EN 12871 for a structural floor and roof decking on joists.

The tested values are without safety factor calculations.

The concentrated load is located at the tongued and grooved joint which is the most vulnerable point.

Table: Static point load (50 x 50 mm<sup>2</sup>) values and impact resistance for WISA-Sprucefloor.

|                      |                 |         | Point load                          |                               |                | Soft body impact  |
|----------------------|-----------------|---------|-------------------------------------|-------------------------------|----------------|-------------------|
|                      |                 |         | Characteristic strength             |                               | Mean stiffness |                   |
| Nominal thickness mm | Veneers/ layers | Span mm | Serviceability F <sub>ser</sub> ' k | Ultimate F <sub>ult</sub> ' k | Rm kN/mm       | Impact resistance |
|                      |                 |         | kN                                  | kN                            |                |                   |
| <b>Floor decking</b> |                 |         |                                     |                               |                |                   |
| 18                   | 7/7             | 400     | 3.4                                 | 5.0                           | 0.68           | Fulfilled         |
| 18                   | 7/7             | 600     | 3.3                                 | 3.9                           | 0.34           | Fulfilled         |
| 22                   | 9/9             | 400     | 4.7                                 | 7.2                           | 0.98           | Fulfilled         |
| 22                   | 9/9             | 600     | 4.4                                 | 6.2                           | 0.55           | Fulfilled         |

Detailed technical properties: Please see DoP (Declaration of Performance) UPM006CPR on [www.wisaplywood.com/dop](http://www.wisaplywood.com/dop).