

## DECLARATION OF PERFORMANCE

**No. UPM007CPR**

1. Identification code of the product-type:  
Structural birch plywood, uncoated or coated
2. Type, batch or serial number of any other element allowing identification of the construction product:  
Structural birch plywood, uncoated or coated, 4-50 mm
3. Intended use or uses of the construction product:  
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
4. Name, registered trade name or registered trade mark and contact address of the manufacturer:  
WISA®  
UPM-Kymmene Wood Oy  
P.O. Box 203  
FI-15141 Lahti, Finland  
www.wisaplywood.com
6. System or systems of assessment and verification of constancy of performance of the construction product:  
AVCP system 2+
7. In case of the declaration of performance concerning a construction product covered by a harmonised standard:  
Notified factory production control certification body Inspecta Sertifiointi Oy No. 0416 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-7108 (Joensuu), 0416-CPR-7109 (Jyväskylä), 0416-CPR-7110 (Pellos), 0416-CPR-7111 (Savonlinna), 0416-CPR-7112 (Chudovo), 0416-CPR-7113 (Otepää).

### 9. Declared performance

| Essential characteristics          | Performance                          | Harmonised technical specification |
|------------------------------------|--------------------------------------|------------------------------------|
| Reaction to fire                   | D-s2,d0 (min 9 mm)                   | EN 13986:2004                      |
|                                    | E (< 9 mm)                           |                                    |
|                                    | F (Multicoated- products)            |                                    |
| Water vapour permeability $\mu$    | wet 90, dry 220 (uncoated)           |                                    |
| Release of formaldehyde            | E1                                   |                                    |
| Content of pentachlorophenol (PCP) | No indication                        |                                    |
| Airborne sound insulation          | NPD                                  |                                    |
| Sound absorption $\alpha$          | 0,10/0,30                            |                                    |
| Thermal conductivity $\lambda$     | 0,17                                 |                                    |
| Bonding quality (acc. to EN 314-2) | Class 3                              |                                    |
| Biological durability              | Use class 2 (uncoated)               |                                    |
|                                    | Use class 3 (coated and edge sealed) |                                    |

## 9. Declared performance, strength and stiffness for structural use

| Nominal thickness                                     |               | 4           | 6,5   | 9     | 12    | 15    | 18    | 21   | 24   | 27   | 30   | 32   | 35   | 40   | 45   | 50   |  |
|---|---------------|-------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|--|
| Number of plies                                       |               | 3           | 5     | 7     | 9     | 11    | 13    | 15   | 17   | 19   | 21   | 23   | 25   | 29   | 32   | 35   |  |
| Essential characteristics                             |               | Performance |       |       |       |       |       |      |      |      |      |      |      |      |      |      |  |
| Characteristic bending strength N/mm <sup>2</sup>     | $f_{m  }$     | 65,9        | 50,9  | 45,6  | 42,9  | 41,3  | 40,2  | 39,4 | 38,9 | 38,4 | 38,1 | 37,8 | 37,6 | 37,2 | 37,0 | 36,8 |  |
|   | $f_{m\perp}$  | 10,6        | 29,0  | 32,1  | 33,2  | 33,8  | 34,1  | 34,3 | 34,4 | 34,5 | 34,6 | 34,6 | 34,7 | 34,7 | 34,8 | 34,8 |  |
| Characteristic compression strength N/mm <sup>2</sup> | $f_{c  }$     | 31,8        | 29,3  | 28,3  | 27,7  | 27,4  | 27,2  | 27,0 | 26,9 | 26,8 | 26,7 | 26,7 | 26,6 | 26,5 | 25,6 | 26,4 |  |
|   | $f_{c\perp}$  | 20,2        | 22,8  | 23,7  | 24,3  | 24,6  | 24,8  | 25,0 | 25,1 | 25,2 | 25,3 | 25,3 | 25,4 | 25,5 | 26,4 | 25,6 |  |
| Characteristic tension strength N/mm <sup>2</sup>     | $f_{t  }$     | 45,8        | 42,2  | 40,8  | 40,0  | 39,5  | 39,2  | 39,0 | 38,8 | 38,7 | 38,5 | 38,4 | 38,4 | 38,3 | 37,0 | 38,1 |  |
|   | $f_{t\perp}$  | 29,2        | 32,8  | 34,2  | 35,0  | 35,5  | 35,8  | 36,0 | 36,2 | 36,3 | 36,5 | 36,6 | 36,6 | 36,8 | 38,0 | 36,9 |  |
| Mean MOE in bending N/mm <sup>2</sup>                 | $E_{m  }$     | 16471       | 12737 | 11395 | 10719 | 10316 | 10048 | 9858 | 9717 | 9607 | 9519 | 9448 | 9389 | 9296 | 9243 | 9198 |  |
|   | $E_{m\perp}$  | 1029        | 4763  | 6105  | 6781  | 7184  | 7452  | 7642 | 7783 | 7893 | 7981 | 8052 | 8111 | 8204 | 8257 | 8302 |  |
| Mean MOE in compression and tension N/mm <sup>2</sup> | $E_{tc  }$    | 10694       | 9844  | 9511  | 9333  | 9223  | 9148  | 9093 | 9052 | 9019 | 8993 | 8972 | 8953 | 8925 | 8631 | 8895 |  |
|   | $E_{tc\perp}$ | 6806        | 7656  | 7989  | 8167  | 8277  | 8352  | 8407 | 8448 | 8481 | 8507 | 8528 | 8547 | 8575 | 8869 | 8605 |  |
| Char. panel shear N/mm <sup>2</sup>                   | $f_{v  }$     | 9,5         | 9,5   | 9,5   |       |       |       |      |      |      | 9,5  |      |      |      |      |      |  |
|   | $f_{v\perp}$  | 9,5         | 9,5   | 9,5   |       |       |       |      |      |      | 9,5  |      |      |      |      |      |  |
| Char. Planar shear N/mm <sup>2</sup>                  | $f_{r  }$     | 2,8         | 3,2   | 2,6   |       |       |       |      |      |      | 2,6  |      |      |      |      |      |  |
|   | $f_{r\perp}$  | NPD         | 1,8   | 2,4   |       |       |       |      |      |      | 2,4  |      |      |      |      |      |  |
| Mean MOR in panel shear N/mm <sup>2</sup>             | $G_{v  }$     | 620         | 620   | 620   |       |       |       |      |      |      | 620  |      |      |      |      |      |  |
|   | $G_{v\perp}$  | 620         | 620   | 620   |       |       |       |      |      |      | 620  |      |      |      |      |      |  |
| Mean MOR in planar shear N/mm <sup>2</sup>            | $G_{r  }$     | 170         | 170   | 205   |       |       |       |      |      |      | 205  |      |      |      |      |      |  |
|   | $G_{r\perp}$  | NPD         | 120   | 160   |       |       |       |      |      |      | 180  |      |      |      |      |      |  |
| Strength and stiffness under point load               |               | NPD         |       |       |       |       |       |      |      |      |      |      |      |      |      |      |  |
| Impact resistance                                     |               | NPD         |       |       |       |       |       |      |      |      |      |      |      |      |      |      |  |

Harmonised technical specification EN 13986:2004

$k_{mod}$  and  $k_{def}$  values according to EN 1995-1-1

10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Lahti, Finland, 1 July, 2013



Kimmo Rinne, Portfolio Manager