



Declaration of Performance according to Regulation (EU) No. 305/2011 of the European Parliament and Council of March 9, 2011

| Declaration of Performance No.  |   | DoP-PB-52-230118  |                             |   |   |   | Replaces Version                    |
|---|---|---|-----------------------------|---|---|---|-------------------------------------|
| 1   | Unique identification code of the product – type  | Resin-bonded particleboard type P5 (esb-PLUS)   |                             |   |   |   | DoP-PB-52-20200815                  |
| 2   | Labelling for identification of building product acc. To article 11, paragraph 4:   | P5 esb PLUS thickness 10-13   | P5 esb PLUS thickness 13-20 | P5 esb PLUS thickness 20-25   |   |   |                                     |
| 3   | Manufacturer's intended use or intended uses of building product in accordance with the applicable harmonized technical specification             | Panels for interior application as load bearing members in humid conditions (interior or protected exterior areas)  |                             |   |   |   |                                     |
| 4   | Name, registered trade name or registered trade mark and contact address of the manufacturer as requested under Article 11 (paragraph 5):         | elka-Holzwerke GmbH<br>Hochwaldstr. 44<br>D-54497 Morbach   |                             | Tel. +49-6533-956-0<br>info@elka-holzwerke.de<br>www.elka-holzwerke.eu                |   |  |                                     |
| 5   | Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12 (paragraph 2): |   |                             | Not named   |   |   |                                     |
| 6   | System or systems of assessment and verification of constancy of performance of the construction product referred to Annex V:                     | System 2+   |                             |   |   |   |                                     |
| 7   | In case of the declaration of performance concerning a construction product covered by a harmonised standard:                                     | The Qualitätsgemeinschaft Holzwerkstoffe e.V. as notified body no. 134 the initial inspection of the factory. The actual factory production quality control and the continuous surveillance, assessment and approval of factory production quality control is done by the (EPH 0766). |                             |   |   |   |                                     |
| 8   | In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:            | not applicable  |                             |   |   |   |                                     |
| 9   | Declared performance  | thickness >10 to 13 mm  | thickness >13 to 20 mm      | thickness >20 to 25 mm  |   |   | Harmonised Technical Specifications |
|   | Bending strength  | 18,0 N/mm <sup>2</sup>  | 16,0 N/mm <sup>2</sup>      | 14,0 N/mm <sup>2</sup>  |   |   |                                     |
|   | Bending stiffness (modulus of elasticity)   | 2550 N/mm <sup>2</sup>  | 2400 N/mm <sup>2</sup>      | 2150 N/mm <sup>2</sup>  |   |   |                                     |
|   | Durablness  |   |                             |   |   |   |                                     |
|   | Bonding quality   | NPD (2)   | NPD (2)                     | NPD (2)   |   |   |                                     |
|   | Transverse tensile strength   | 0,45 N/mm <sup>2</sup>  | 0,45 N/mm <sup>2</sup>      | 0,40 N/mm <sup>2</sup>  |   |   |                                     |
|   | Durability (swelling)   | 11%   | 10%                         | 10%   |   |   |                                     |
|   | Durability (moisture resistance option 2)   | 0,15 N/mm <sup>2</sup>  | 0,14 N/mm <sup>2</sup>      | 0,12 N/mm <sup>2</sup>  |   |   |                                     |
|   | mechanic  | NPD (2)   | NPD (2)                     | NPD (2)   |   |   |                                     |
|   | biological  | NPD (2)   | NPD (2)                     | NPD (2)   |   |   |                                     |
|   | Formaldehyde emission   | E1E05   | E1E05                       | E1E05   |   |   |                                     |
|   | Reaction to fire  | D-s2,d0 (1)   | D-s2,d0                     | D-s2,d0   |   |   |                                     |
|   | Water vapour permeability μ: (4)  | Dry 80, Humid 40  | Dry 80, Humid 40            | Dry 80, Humid 40  |   |   |                                     |
|   | Airborne sound insulation: (4)  | NPD   | NPD (2)                     | NPD (2)   |   |   |                                     |
|   | Sound absorption coefficient: (4)   | 0,10 / 0,25   | 0,10 / 0,25                 | 0,10 / 0,25   |   |   |                                     |
|   | Thermal conductivity λ: (4)   | 0,12 W/(mK)   | 0,12 W/(mK)                 | 0,12 W/(mK)   |   |   |                                     |
|   | Hole-reveal-stability   | NPD (2)   | NPD (2)                     | NPD (2)   |   |   |                                     |
|   | Air permeability  | NPD (2)   | NPD (2)                     | NPD (2)   |   |   |                                     |
|   | Structural Strength: acc. DIN EN 12369-1:2001   | thickness >10 to 13 mm  | thickness >13 to 20 mm      | thickness >20 to 25 mm  |   |   |                                     |
|   | bending   | 15,0 N/mm <sup>2</sup>  | 13,3 N/mm <sup>2</sup>      | 11,7 N/mm <sup>2</sup>  |   |   |                                     |
|   | tension   | 9,4 N/mm <sup>2</sup>   | 8,5 N/mm <sup>2</sup>       | 7,4 N/mm <sup>2</sup>   |   |   |                                     |
|   | compression   | 12,7 N/mm <sup>2</sup>  | 11,8 N/mm <sup>2</sup>      | 10,3 N/mm <sup>2</sup>  |   |   |                                     |
|   | shear perpendicular to panel plane  | 7,0 N/mm <sup>2</sup>   | 6,5 N/mm <sup>2</sup>       | 5,9 N/mm <sup>2</sup>   |   |   |                                     |
|   | shear in panel plane  | 1,9 N/mm <sup>2</sup>   | 1,7 N/mm <sup>2</sup>       | 1,5 N/mm <sup>2</sup>   |   |   |                                     |
|   | Stiffness (average) acc. DIN EN 12369-1:2001  |   |                             |   |   |   |                                     |
|   | bending   | 3500 N/mm <sup>2</sup>  | 3300 N/mm <sup>2</sup>      | 3000 N/mm <sup>2</sup>  |   |   |                                     |
|   | tension and compression   | 2000 N/mm <sup>2</sup>  | 1900 N/mm <sup>2</sup>      | 1800 N/mm <sup>2</sup>  |   |   |                                     |
|   | shear perpendicular   | 960 N/mm <sup>2</sup>   | 930 N/mm <sup>2</sup>       | 860 N/mm <sup>2</sup>   |   |   |                                     |
| Properties independent of thickness of panel  |   |   |                             |   |   |   |                                     |
| Mechanical durability, deformation coefficient (NKL 1 (3)):   |   | kdef = 2,25   |                             |   |   |   |                                     |
| Mechanical durability, deformation coefficient (NKL 2 (3)):   |   | kdef = 3,00   |                             |   |   |   |                                     |
| Mechanical durability, creep factor, (NKL 1), all thicknesses:  |   | Loading   |                             |   |   |   |                                     |
|   |   | permanent: kmod = 0,30  | long term: kmod = 0,45      | medium term: kmod = 0,65  |   |   |                                     |
| Mechanical durability, creep factor, (NKL 2), all thicknesses:  |   | permanent: kmod = 0,20  | long term: kmod = 0,30      | medium term: kmod = 0,45  |   |   |                                     |
| Content of PCP:   |   | <= 5 ppm  |                             |   |   |   |                                     |
| The performance of the product in accordance with paragraphs 1 and 2 corresponds to the declared performance stated to item 9. Responsible for the preparation of this declaration of performance is solely the manufacturer named in acc. To item 4. |   |   |                             |   |   |   |                                     |
| Signed on behalf of the manufacturer and the name of the manufacturer by:   |   |   |                             |   |   |   |                                     |
| 10  | name:   | Larissa Kuntz   | Date:                       | 18.01.2023  | Note (1): only valid for panel thicknesses of 9 mm and more   |   |                                     |
|   | position:   | CEO   | Signature:                  |  | Note (2): NPD = no performance determined   |   |                                     |
|   | place of issue:   | D-54497 Morbach   |                             |   | Note (3): NKL = service class acc. DIN EN 1995-1-1  |   |                                     |
|   |   |   |                             |   | Note (4): The product which this performance is declared, is for the most part made from natural wood. Therefore, the properties indicated with (4) are subject to the variations caused by wood and thus do not constitute a reason for a claim. |   |                                     |

EN 13986:2004+A1:2015 and EN 312