# DECLARATION OF PERFORMANCE

Reference number: **NGOSB2DoPv6**


**West Fraser Europe nv**

**Eikelaarstraat 33**

**3600 Genk**

**Belgium**


| Unique Identification code of the product type* | Intended Use | Systems of AVCP | Notified Body | Harmonised standard |
|---|---|---|---|---|
| **SterlingOSB zero, OSB2** OSB/2 (EN300) 6mm to 40mm* | Internal use as structural components in dry conditions | 2+ | 1161 | EN13986:2004 +A1:2015 |
| *The unique identification code of the product type is a combination of the technical class and the individual product's nominal thickness | | | | |

**Declared performance** *(covering a range of producttypes OSB/2, 6mm to 40mm*)*

| Essential characteristics | Performance | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Thickness range (mm) | | | | | | | | | |
| | 6 to 10 | | >10 to <18 | | 18 to 25 | | >25 to 32 | | >32 to 40 | |
| | 0 | 90 | 0 | 90 | 0 | 90 | 0 | 90 | 0 | 90 |
| [1] Characteristic Strength (N/mm²): - Bending $f_m$ | 18.0 | 9.0 | 16.4 | 8.2 | 14.8 | 7.4 | NPD | NPD | NPD | NPD |
| - Compression $f_c$ | 15.9 | 12.9 | 15.4 | 12.7 | 14.8 | 12.4 | NPD | NPD | NPD | NPD |
| - Tension $f_t$ | 9.9 | 7.2 | 9.4 | 7.0 | 9.0 | 6.8 | NPD | NPD | NPD | NPD |
| - Panel Shear $f_v$ | 6.8 | | 6.8 | | 6.8 | | NPD | | NPD | |
| - Planar shear $f_r$ | 1.0 | | 1.0 | | 1.0 | | NPD | | PD | |
| [1] Mean Stiffness (MOE) (N/mm²): - Tension $E_t$ | 3800 | 3000 | 3800 | 3000 | 3800 | 3000 | NPD | NPD | NPD | NPD |
| - Compression $E_c$ | 3800 | 3000 | 3800 | 3000 | 3800 | 3000 | NPD | NPD | NPD | NPD |
| - Bending $E_m$ | 4930 | 1980 | 4930 | 1980 | 4930 | 1980 | NPD | NPD | NPD | NPD |
| - Panel Shear $G_v$ | 1080 | | 1080 | | 1080 | | NPD | | NPD | |
| - Planar Shear $G_r$ | 50 | | 50 | | 50 | | NPD | | NPD | |
| **Punching Shear, Characteristic strength under point load $F_{max,k}$ (kN)** *(for floors and roofs)* | NPD | | NPD | | NPD | | NPD | | NPD | |
| **Punching Shear, Mean stiffness under point load, R (N/mm²)** *(for floors and roofs)* | NPD | | NPD | | NPD | | NPD | | NPD | |
| **Characteristic serviceability strength under point load $F_{Ser,k}$ (kN)** *(for floors and roofs)* | NPD | | NPD | | NPD | | NPD | | NPD | |
| **Soft Body Impact resistance** *(Floor/roofs/Walls)* | NPD | | NPD | | NPD | | NPD | | NPD | |
| **Racking resistance Characteristic Strength $F_{Rd,max,k}$** (N) *(for walls)* | NPD | | NPD | | NPD | | NPD | | NPD | |
| **Racking resistance Mean Stiffness $R_{mean}$ (N/mm)** *(for walls)* | NPD | | NPD | | NPD | | NPD | | NPD | |
| [5] **Embedment strength $f_h$ (N/mm²)** | Calculation according to EN 1995-1-1 (8.22) | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Water vapour permeability μ** | NPD | NPD | NPD | NPD | NPD |
| **Release of formaldehyde** | E1 | E1 | E1 | E1 | E1 |
| **Release (content) of pentachlorophenol (PCP)** | ≤5ppm | ≤5ppm | ≤5ppm | ≤5ppm | ≤5ppm |
| **Airborne sound insulation (surface mass) R (dB)** | NPD | NPD | NPD | NPD | NPD |
| **[3] Sound absorption, Frequency range 250Hz to 500Hz (α)** | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| **[3] Sound absorption, Frequency range 1000Hz to 2000Hz (α)** | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| **Thermal conductivity λ (W/m.K)** | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| **Air Permeability (Δ*p*=50Pa) according to EN 12114, $V_0$ ($m^3/h\ m^2$)** | NPD | NPD | NPD | NPD | NPD |
| **Durability** | | | | | |
| **Internal bond ($N/mm^2$)** | 0.34 | 0.32 | 0.30 | 0.29 | 0.26 |
| **Swelling in thickness (%)** | 20 | 20 | 20 | 20 | 20 |
| **[4] Mechanical, (Creep $k_{def}$) service class 1** | 2.25 | 2.25 | 2.25 | NPD | NPD |
| **Mechanical (Duration of load $k_{mod}$)** | **Action Mode** | | | | |
| | Permanent | Long Term | Medium Term | Short Term | Instantaneous |
| **[4] Service Class 1** | 0.3 | 0.45 | 0.65 | 0.85 | 1.1 |
| **Biological** | Use class 1 | | | | |

| **Thickness range (mm)** | **6 to 10** | **>10 to <18** | **18 to 25** | **>25 to 32** |
|---|---|---|---|---|
| **Avg. Density ($kg/m^3$)** | >= 600 | | | |

| | | Minimum thickness | Class (excluding floorings)[g] | Class (Flooring)[h] |
|---|---|---|---|---|
| **[2] Reaction to fire**<br><br>**(see notes to table for field of application details and associated documentation references)** | **Without an air gap behind the panel [abef]** | 9 | D-s2,d0 | $D_{fl}$,s1 |
| | **With a closed or open air gap ≤ 22mm behind the panel [cef]** | 9 | D-s2,d2 | - |
| | **Closed air gap behind the panel [def]** | 15 | D-s2,d0 | $D_{fl}$,s1 |
| | **With an open air gap behind the panel [def]** | 18 | D-s2,d0 | $D_{fl}$,s1 |
| | **Any end use [ef]** | 3 | E | $E_{fl}$ |
| | a -Mounted without an air gap directly against class A1 or A2-s1, d0 products with minimum density 10kg/m3 or at least class D-s2, d2 products with minimum density 400 kg/m3.<br>b -A substrate of cellulose insulation material of at least class E may be included if mounted directly against the wood-based panel, but not for floorings.<br>c -Mounted with an air gap behind. The reverse face of the cavity shall be at least class A2-s1, d0 products with minimum density 10 kg/m3.<br>d -Mounted with an air gap behind. The reverse face of the cavity shall be at least class D-s2, d2 products with minimum density 400 kg/m3.<br>e -Veneered, phenol- and melamine-faced panels are included for class excl. floorings.<br>f -A vapour barrier with a thickness up to 0,4 mm and a mass up to 200 $g/m^2$ can be mounted in between the wood-based panel and a substrate if there are no air gaps in between.<br>g -Class Provided for in Table 1 of the Annex to decision 2000/147/EC.<br>h -Class Provided for in Table 2 of the Annex to decision 2000/147/EC . | | | |

**NOTES TO TABLE**

1-Taken from EN 12369-1:2001

2-Reaction to fire classes from Table 1 of Commission Decision 2003/43/EC of January 2003 (OJEU L13 of 18.1.2003) corrected by Corrigendum (OJEU L33 of 8.2.2003) and amended by Commission decision 2007/348/EC of May 2007 (OJEU L131 of 23-05-2007); also reproduced in Table three of EN 13986:2004+A1:2015 for wood-based panels installed according to CEN/TR 12872

3-Taken from Table 10 of EN 13986:2004+A1:2015

4-Taken from Eurocode 5 EN 1995-1-1 2004+A2:2014

5-Embedment strenght can be calculated according to EN 1995-1-1 2004+A2:2014, by taking the OSB panel thickness (t) and the diameter of the used fastener (d) in account:

$$f_{h,k} = 65\, d^{-0,7}\, t^{0,1}$$

*The performance of the product identified is in conformity with the declared performance.*

*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:

**Sterkmans Peter**

***Quality Supervisor***

Peter.Sterkmans Digitaal ondertekend door Peter.Sterkmans
Datum: 2023.06.29 14:38:58 +02'00'

**Genk, Belgium**

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