

# MATERIAL'S FEATURES WOODN

## Mechanical properties

|   |  |   |
|---|--|---|
| Elasticity (bending)  | UNI EN ISO 178                               | @23 °C<br>@65 °C  |
| Yield strenght (flexural)   | UNI EN ISO 178                               | @23 °C<br>@65 °C  |
| Water absorbption and humidity  | ASTM D1037                                   | absorption 0,07%  |
| Dynamic- Mechanical analysis of transition temperature  | ASTM D4065/95                                | 78.8 °C   |
| Linear thermal expansion coefficient (from -10 °C to 70 °C)                                   | TMA ASTM E 831/2006                          | longitudinal $46,9 \times 10^{-6} \text{ m}/(\text{m}^{\circ}\text{C})$<br>trasversal $48 \times 10^{-6} \text{ m}/(\text{m}^{\circ}\text{C})$                                  |
| Tensile strenght and tensile strenght after accelerated weathering (exposure to xenon lights) | ASTM D638-10 (tensile test)<br>ASTM G155-050 | difference after 2 months of exposure ~5,21%<br>difference after 3 months of exposure ~6,9%<br>(meet the requirements to comply with Miami Dade and Florida Building Code 2014) |

## Reaction to fire

|   |                          |  |
|---|--------------------------|--|
| Flammability  | UL94 AS 3959-2009        | V-0 Class<br>BAL-29  |
| Flame spread index<br>Smoke developed index                     | ASTM E84                 | Class A  |
| Ignition temperature  | ASTM D1929               | 476 °C   |
| Average critical radiant flux of floor                          | AS ISO 9239<br>ASTM E648 | $\geq 11 \text{ kW}/\text{m}^2$<br>$> 1,03 \text{ W}/\text{cm}^2$ (class I as per NFPA 101)                    |
| Ignitability, flame propagation, heat release and smoke release | AS/NZS 1530.3:1999       | Ignitability (0-20) = 8<br>Spread of Flame (0-10) = 0<br>Heat Evolved (0-10) = 0<br>Smoke Developed (0-10) = 7 |

## Chemical and biological features

|  |                              |                                |
|--|------------------------------|--------------------------------|
| Evaluation of the action of microorganisms (scale from 0 to 5) | EN ISO 846:97                | Test result: 1                 |
| Heavy metal content (Pb, Ge, Cr, Hg)                           | GB18584-2001<br>GB18580-2001 | < 0,5 ppm                      |
| Formaldehyde emission  | EN 717-2:1994                | 0,1 mg HCHO/(m <sup>2</sup> h) |



The values shown are indicative and not binding. Test reports available upon request.  
The natural aging of the material and temperature variations may cause deviations from the values indicated above.  
The product is protected by a warranty in line with legal requirements: for more information see the SPECS on [www.woodn.com](http://www.woodn.com)

# MATERIAL'S FEATURES GREENWOOD

## Mechanical properties

|   |                     |                                |
|---|---------------------|--------------------------------|
| Flexural elastic modulus  | UNI EN ISO 178:2003 | 3300 Mpa                       |
| Flexural strength   | UNI EN ISO 178:2003 | 25 Mpa                         |
| Elastic tensile modulus   | EN ISO 527:1996     | 3300 Mpa                       |
| Tensile strength  | EN ISO 527:1996     | 12 Mpa                         |
| Elongation at break   | EN ISO 527:1996     | 0,78 %                         |
| Charpy impact resistance  | EN ISO 179-1:2007   | 5,65 KJ/m <sup>2</sup>         |
| Coefficient of linear thermal expansion longitudinal (from -10 °C to 45 °C) | TMA ASTM E 831/2005 | 33,3 x10 <sup>-6</sup> m/(m°C) |

## Reaction to fire

|                                  |                    |                         |
|----------------------------------|--------------------|-------------------------|
| Reaction to fire (critical flux) | UNI EN 9239-1:2006 | 2,24 kW/ m <sup>2</sup> |
|----------------------------------|--------------------|-------------------------|

## Chemical and biological features

|                        |               |                                  |
|------------------------|---------------|----------------------------------|
| Mold/mildew resistance | ASTM G21:2009 | Fungal growth: no visible growth |
|------------------------|---------------|----------------------------------|

## Surface characteristics

|                                   |                         |       |
|-----------------------------------|-------------------------|-------|
| Slip resistance, USRV coefficient | UNI ENV 12633:2006      | > 52  |
| Friction coefficient              | B.C.R.A. Rep. CEC. 6/81 | > 0.4 |



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