WOODN MODULATUS

First Baptist Church Arlington (Q20410)

MATERIAL'S FEATURES

Mechanical properties

Elasticity (bending)	UNI EN ISO 178	2070 Mpa (@23 °C) 660 Mpa (@65 °C)
Yield strenght (flexural)	UNI EN ISO 178	31 Mpa (@23 °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 $x10^{-6}$ m/(m°C) trasversal 48 $x10^{-6}$ m/(m°C)
Tensile strenght and tensile strenght after accelerated weathering (exposure to xenon lights)	ASTM D638-10 (tensile test) ASTM G155-050	difference after 2 months of exposure ~5,21% difference after 3 months of exposure ~6,9% *(meet the requirements to comply with Miami Dade and Florida Building Code 2014)*

Reaction to fire

Flammability	UL94 AS 3959-2009	V-0 Class BAL-29
Flame spread index Smoke developed index	ASTM E84	Class A
Ignition temperature	ASTM D1929	476 °C
Average critical radiant flux of floor	AS ISO 9239 ASTM E648	≥ 11 kW/m^2 > 1,03 W/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 Spread of Flame (0-10) = 0 Heat Evolved (0-10) = 0 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 GB18580-2001	< 0,5 ppm
Formaldehyde emission	EN 717-2:1994	0,1 mg HCHO/(m^2h)

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.woodngreenwood.com

GENERAL INSTALLATION INSTRUCTIONS

Key points to be followed before and during the installation process:

- Store the material on a flat surface providing for a stable support on the whole surface, in a dry, clean area, protected from frost and direct sun light.
- Before starting the installation, carefully check the material and notify immediately of any manufacturing issues. Complaints will not be accepted after installation.
- Before starting the installation, check project's drawings (or shop drawings if provided) and the correspondence of the received material against the packing list.
- Acclimate the material in stock to the temperature of the jobsite for at least 48 hours prior to installation.
- The installation temperature must be higher than 0 °C.
- Do not cover the product with sheets made with non-breathable material (nylon, polyethylene and similar materials). For this purpose it is advisable to use breathable material such as painter felt sheets.
- The accumulation of electrostatic charges is a natural phenomenon commonly found in plastic materials, and under exceptional environmental conditions this may also occur in Woodn™'s products.
- Profiles shall be handled with care in order to prevent damages. It is recommended to lift the profiles on the whole length during displacement and not make them slide on top of each other. Always use clean fabric gloves when handling profiles.
- Prevent the formation of dirt on and between profiles; in particular, make sure that mechanical processes carried out on other materials, near Woodn products, do not determine the accumulation of chips or dust of any kinds. During the installation/assembly phase do not apply any label or sticker; if already applied, please remove immediatly after installation. Immediately remove major stains such as paint, concrete or tar residues.
- For cleaning and maintenance instructions refer to page 121. The WoodN warranty will be rendered null and void in the event of incorrect or improper handling, cleaning and maintenance.

EXPANSION GAP BETWEEN ADJACENT PROFILES AND WALLS

WoodN, due to material's composition's features and extrusion technology, undergoes after the first exposure an initial dimensional shrinkage less than 0.4% of the profile length (max value established according to EN 479: 1995) and presents a linear contraction / dilatation due to temperature variations. In outdoor applications, leave a gap at the end of the profile according to the relative size in the table below:

Laying temperature	Expansion gap
< 20 °C	2 mm/m
> 20 °C	1 mm/m

For example:

For laying conditions with a temperature around 30 °C and a plank length of 2000 mm, it should be left gaps measuring
2000 x 1 mm/m = 2 mm.

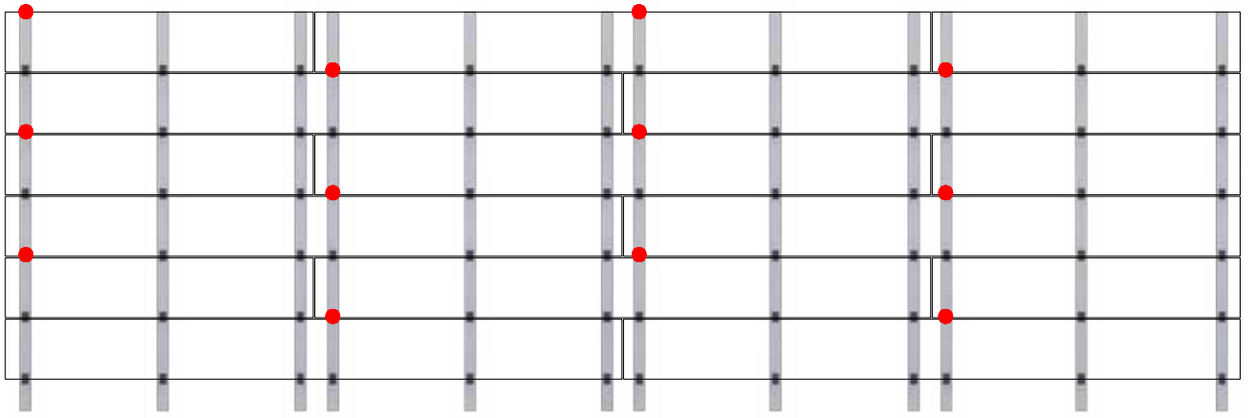
WARNING: it has to be noted that the failure to comply strictly with the criteria for the application of fixed points and floating points, causes the deformation of the materials and the misalignment of all the expansion joints.

FIXED POINT

To make sure that the expansion gap will remain over time, in outdoor applications a FIXED POINT should be made on each plank. We also recommend strictly adhering to the positioning pattern of the fixed point.

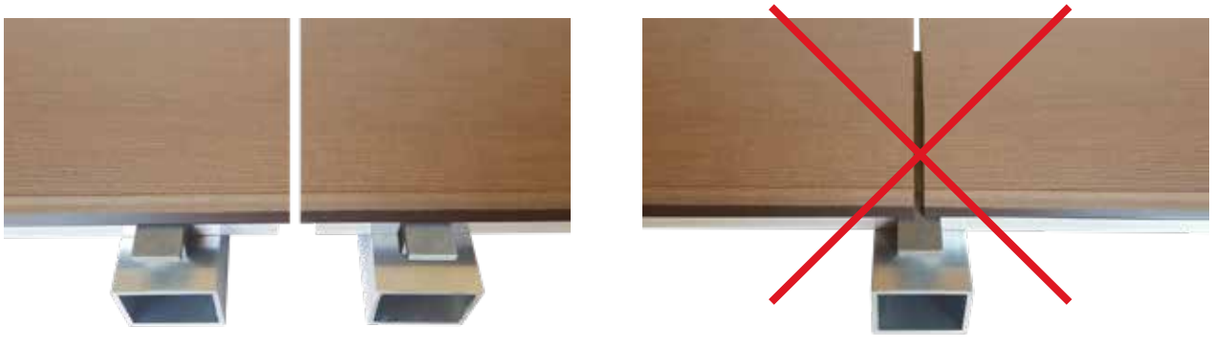
LAYING PATTERN - RUNNING BOND

fixed point for expansion



ALIGNMENTS

We recommend to align and plumb the substructure before you starting the installation.
We recommend leaving an expansion joint between the heads of the substructure profiles in correspondence with the floors slabs for possible settling of the building.



In correspondence of the heads of two consecutive planks, the aluminum joists must be doubled as shown in the photo.

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