

## TECHNICAL SPECIFICATIONS

|               |                       |                                    |          |
|---------------|-----------------------|------------------------------------|----------|
| <b>Bevel</b>  | Painted               | <b>UFH</b>                         | See IM   |
| <b>Lock</b>   | Tight lock            | <b>Installation</b>                | Floating |
| <b>Layer</b>  | <b>Thickness (mm)</b> | <b>Type</b>                        |          |
| Top Layer     | 0.50                  | Ceramic bead enhanced UV coating   |          |
| Core          | 3.50                  | Waterproof thermoplastic composite |          |
| Backing Layer | 1.50                  | IXPE                               |          |
| <b>Total</b>  | <b>5.5</b>            |                                    |          |

## CERTIFICATIONS & CHEMICAL PROPERTIES


| Norm                | Item             | Test method                  | Requirement                | Result  |
|---------------------|------------------|------------------------------|----------------------------|---|
| EN 14041            | Emissions        | EN 717-1                     | ≤ 0.124 mg/m <sup>3</sup>  | E1  |
| Decret No2011-321   | Emissions        | ISO 16000                    | TVOC<1000µg/m <sup>3</sup> | VOC A+  |
| GreenGuard Gold     | Emissions        | Spectrometry, chromatography | TVOC≤220µg                 | Certified, requests private label application |
| Prop 65             | Orthophthalates  | Spectrometry                 | ND                         | Compliant                                     |
| CPSIA               | Lead             | CPSC-CH-E-1002-08            | ≤ 90ppm                    | Compliant                                     |
| EU REACH Regulation | PAHs             | Spectrometry, chromatography | <1mg/kg                    | Compliant                                     |
|                     | SVHC             | Spectrometry, chromatography | ≤ 0.1% (w/w)               | Compliant                                     |
| EN 14041            | CE Certification | Multiple                     | Multiple                   | Compliant                                     |

## PHYSICAL PROPERTIES

| Norm             | Item                                      | Test Method          | Requirement   | Result                                  |
|------------------|---|----------------------|---|---|
| ISO 10582        | Dimensional Stability                     | ISO 23999            | ΔW/ΔL ≤ 0.15%   | Compliant                               |
|                  | Curling                                   | ISO 23999            | ≤1mm  | Compliant                               |
|                  | Length tolerance                          | ISO 24342            | ≤ 0.15% of nominal length up to 0.5 mm max.   | Compliant                               |
|                  | Width tolerance                           | ISO 24342            | ≤ 0.10% of nominal width up to 0.5 mm max.  | Compliant                               |
|                  | Thickness tolerance                       | ISO 24346            | +0.13mm<br>-0.10mm  | Compliant                               |
|                  | Squareness and Straightness               | ISO 24342            | ≤0.25mm/≤400mm<br>≤0.35mm/≥400mm  | Compliant                               |
|                  | Flatness                                  | ISO 10582 Appendix B | Length: ≤ 0.50% (concave) ≤ 1.0% (convex)<br>Width: ≤ 0.10%(concave) ≤ 0.15% (convex) | Compliant                               |
|                  | Openings between tiles/planks             | ISO 10582 Appendix C | 0.15mm  | Compliant                               |
|                  | Height difference between tiles/planks    | ISO 10582 Appendix C | 0.1mm   | Compliant                               |
|                  | Residual Indentation                      | ISO 24343-1          | ≤0.1mm  | NA                                      |
| EN 16511         | Castor chair                              | ISO 4918             | Slight change only  | NA                                      |
|                  | Resistance to Light                       | ISO 105-802:2014     | ≥ Grade 6   | Compliant                               |
|                  | Locking strength                          | ASTM F1515           | ΔE ≤8   | Compliant                               |
|                  | Wear resistance                           | ISO 10582 Appendix D | 1.5 KN/m  | Meet commercial requirements            |
|                  | Impact resistance                         | EN 13329             | ≥4000 cycles  | Compliant                               |
|                  | Micro scratch                             | EN 13329 Annex A     | ≥1600mm   | Compliant                               |
|                  | Furniture leg                             | EN 16094             | ≤ MSR-A2, ≤ MSR-B2  | Compliant                               |
|                  | Resistance to staining                    | EN 424               | No visible damage   | Compliant                               |
|                  | Swelling                                  | EN 438-2             | Groups 1 and 2: grade 5; Group 3: grade 4   | Compliant                               |
|                  | Surface Integrity                         | ISO 24336            | ≤12%  | Compliant                               |
| ASTM F3261       | Residual Indentation                      | ASTM F1914           | No puncture   | Meets commercial requirements           |
|                  | Static load                               | ASTM F1914           | ≤0.18mm (70lbs/34kg)  | Meets commercial requirements           |
|                  | Resistance to light                       | ASTM F970/ASTM F387  | ≤0.13mm   | NA                                      |
| NALFA LF 01-2011 | Resistance to Chemicals                   | ASTM F1514           | ΔE ≤8   | Meets commercial requirements           |
|                  | Impact Resistance                         | NALFA LF 01-2011     | Slight change only  | Class 4, meets commercial requirements  |
|                  | Impact Resistance                         | NALFA LF 01-2011 3.5 | ≥ 1400mm  | Class 4, meets commercial requirements  |
| EN 14041         | Impact Resistance                         | NALFA LF 01-2011 3.6 | ≥ 500mm   | Class 4, meets commercial requirements  |
|                  | Thermal Resistance (R)                    | EN 12667/ASTM C518   | NA  | Suitable for underfloor heating systems |
|                  | Slipperiness                              | EN 13893             | ≥ 0.3   | Pass                                    |
|                  | Reaction To fire                          | EN 13051-1           | NA  | Class Bfl -S1                           |
| Others           | Static Electrical Propensity((voluntary)) | EN 1815              | ≤ 2.0kV   | NA                                      |
|                  | Density                                   | ISO 23996            | NA  | 1500kg/m <sup>3</sup>                   |
|                  | Airborne sound transmission               | ISO 10140-2          | NA  | 68db                                    |
|                  | Impact sound transmission                 | ISO 10140-3          | NA  | 42db                                    |
|                  | Impact sound transmission - Reduction     | ISO 10140-1          | NA  | 20db                                    |
|                  | Slipperiness                              | DIN 51130            | NA  | R9                                      |
|                  | Fire Resistance (CHF)                     | ASTM E648/NFPA 253   | ≥0.45   | Class 1                                 |

## LEED SCORECARD

LEED was developed to address all buildings everywhere, regardless of where they are in their life cycle. From hospitals to data centers, from historical buildings to those still in the design phase, there is a LEED certification program for every building. Our products will contribute value to a building's LEED v4 Scorecard in the following LEED certification program categories recognized by the USGBC as per following

| LEED Programme Certification  | Category  | Credit Title   | LEED Points Attainable  | Credit Description   | How our product contributes to obtaining LEED points  |
|---|---|--|---|--|---|
|  | Indoor Environmental Quality                              | Credit 1: Enhanced Indoor Air Quality Strategies – Option 2 Additional Enhanced IAQ Strategie - option D | 1 point ID&C,<br>2 points Retail CI                                       | To reduce concentrations of chemical that can damage air quality, human health, productivity, and the environment. | 1. Formaldehyde emission are less than 0.05mg/m <sup>3</sup> , TVOCs are less than 0.5mg/m <sup>3</sup> .<br>2. The product is GreenGuard Gold certified. |
|   |   | Credit 2: Low-Emitting Materials – Option1 Flooring  | 1 point   |  | 1. VOC emission are less than 0.5mg/m <sup>3</sup> .<br>2. The products is GreenGuard Gold certified.   |
|   |   | Credit 9: Acoustic Performance   | 2 points  | To provide effective acoustic design   | The product has a high acoustic performance. Rw and Ln,w test report are available on request   |
|   |   | Credit 4: Indoor Air Quality Assessment - Option 2 Air Testing   | 2 points  | To establish better quality indoor air in the building   | 1. Formaldehyde emission are less than 0.05mg/m <sup>3</sup> , TVOCs are less than 0.5mg/m <sup>3</sup> .<br>2. The product is GreenGuard Gold certified. |
| Material & Resource   | Credit 4: Material ingredient– Option 2                   | 1 point  | Minimize the use and generation of harmful substances                     | The product is 100% REACH compliant  |   |
|   | Credit 6 – PBT source reduction: lead, cadmium and copper | 1 point  | To reduce the release of persistent, bioaccumulative, and toxic chemicals | The product is free of lead, cadmium and copper  |   |



Building Operations and Maintenance

|                                |  |         |  |   |
|--------------------------------|--|---------|--|---|
| <b>Material &amp; Resource</b> | Credit 3: Purchasing - Facility maintenance and renovation | 1 point | To reduce the environmental harm from materials used in building renovations | <ol style="list-style-type: none"> <li>The product is 100% REACH compliant</li> <li>Formaldehyde emission are less than 0.05mg/m<sup>3</sup>, TVOCs are less than 0.5mg/m<sup>3</sup>.</li> <li>Test report according to ISO 16000 is available on request.</li> <li>The product is GreenGuard Gold certified.</li> </ol> |
|--------------------------------|--|---------|--|---|



Homes

|                                     |  |                        |   |  |
|-------------------------------------|--|------------------------|---|--|
| <b>Indoor Environmental Quality</b> | Credit 2: Contaminant Control – Option 4 Air Testing | 1 point                | Demonstrate that contaminants do not exceed concentration levels listed | The products is GreenGuard Gold certified.   |
|                                     | Credit 7: Low-Emitting Materials                     | 0.5 point              | To reduce occupants’ exposure to airborne chemical contaminants         | The product is GreenGuard Gold certified and meet the requirements of CA Section 01350. The product is made with ULEF or non-added formaldehyde material |
| <b>Material &amp; Resource</b>      | Prerequisite – Durability management                 | 0 point (Prerequisite) | To promote durability and performance of the building                   | The product is water resistant   |



Interior Design and Construction

|                                     |   |                                  |   |   |
|-------------------------------------|---|----------------------------------|---|---|
| <b>Indoor Environmental Quality</b> | Credit 1: Enhanced Indoor Air Quality Strategies – Option 2 Additional Enhanced IAQ Strategies - option D | 1 point ID&C, 2 points Retail CI | To reduce concentrations of chemical contaminants that can damage air quality, human health, productivity, and the environment. | <ol style="list-style-type: none"> <li>Formaldehyde emission are less than 0.05mg/m<sup>3</sup>, TVOCs are less than 0.5mg/m<sup>3</sup>.</li> <li>The product is GreenGuard Gold certified.</li> </ol> |
|                                     | Credit 2: Low-Emitting Materials – Option1 Flooring   | 1 point                          |   | <ol style="list-style-type: none"> <li>VOC emission are less than 0.5mg/m<sup>3</sup>.</li> <li>The products is GreenGuard Gold certified.</li> </ol>   |
|                                     | Credit 4: Indoor Air Quality Assessment - Option 2 Air Testing  | 2 points                         | To establish better quality indoor air in the building  | <ol style="list-style-type: none"> <li>Formaldehyde emission are less than 0.05mg/m<sup>3</sup>, TVOCs are less than 0.5mg/m<sup>3</sup>.</li> <li>The product is GreenGuard Gold certified.</li> </ol> |
|                                     | Credit 9: Acoustic Performance  | 2 points                         | To provide workspaces and classrooms effective acoustic design  | The product has a high acoustic performance. Rw and Ln,w test report are available on request   |
| <b>Material &amp; Resource</b>      | Credit 4: Material ingredient– Option 2   | 1 point                          | Minimize the use and generation of harmful substances   | The product is 100% REACH compliant   |

**WELL SCORECARD**

The WELL Building Standard is founded on the understanding that facets of our environment interact with personal, genetic and behavioral factors to shape our overall health and well-being. By compiling leading practices in building design and management and referencing existing standards and best practice guidelines set by governmental and professional organizations, WELL works to harmonize and clarify existing thresholds and requirements.

| Facet      | Feature                          | Part  | Requirements   | Concept score   | How our product contribute to obtain WELL level certification  |
|------------|----------------------------------|---|--|---|--|
| <b>AIR</b> | <b>01. Air quality standards</b> | <b>1. Standards For Volatile Substances</b> | The following conditions are met:<br>a. Formaldehyde levels less than 27ppb (0.027ppm)<br><br>b. Total volatile organic compounds less than 500ug/m <sup>3</sup> (0.5mg/m <sup>3</sup> )       | PRECONDITION  | <ol style="list-style-type: none"> <li>Formaldehyde emission are less than 0.05mg/m<sup>3</sup>.</li> <li>The total volatile organic compounds are less than 0.5mg/m<sup>3</sup>.</li> </ol>   |
|            |                                  | <b>04. VOC Reduction</b>                    | <b>1. Interior Paints and Coatings</b>   | The VOC limits of newly applied paints and coating meet one of the following requirements:<br><br>a. 100% of installed products meet California Air Resources Board (CARB) 2007, Suggested Control Measure (SCM) for Architectural Coatings, or South Coast Air Quality Management District (SCAQMD) Rule 1113, effective June 3, 2011 for VOC content.<br><br>b. At minimum 90%, by volume, meet the California Department of Public Health (CDPH) Standard Method v1.1-2010 for VOC emissions | PRECONDITION   |
|            |                                  | <b>3. Flooring</b>                          | The VOC emissions of all newly installed flooring must meet all limits set by the following, as applicable:<br><br>a. California Department of Public Health (CDPH) Standard Method v1.1 2010. | PRECONDITION  | <p>Conforms to the CDPH/EHLB Standard Method v1.1-2010 (California Section 01350), effective January 1, 2012, for the school classroom and private office parameters when modeled as Flooring.</p> <p>The product is GreenGuard Gold certified</p> |
|            |                                  | <b>11. Fundamental Material Safety</b>      | <b>1. Asbestos and Lead Restriction</b>  | All newly-installed building materials meet the following materials composition requirements:<br>a. No asbestos.<br>b. Not more than 100 ppm (by weight) added lead.  | PRECONDITION   |
|            |                                  | <b>2. Lead Abatement</b>                    | For repair, renovation or painting on buildings constructed prior to any applicable laws banning or restricting lead paint, lead evaluation and abatement.                                     | PRECONDITION  | The product contain less than 90 ppm.  |
|            |                                  | <b>3. Asbestos Abatement</b>                | To reduce hazards in buildings constructed prior to any applicable laws banning or restricting asbestos, the following testing, evaluation and abatement.                                      | PRECONDITION  | The product contain less than 90 ppm.  |

|  |                              |  |   |   |   |   |
|--|------------------------------|--|---|---|---|---|
|  | 25. Toxic Material Reduction | 2. Flame Retardant Limitation          | Halogenated flame retardants are limited in the following components to 0.01% (100 ppm) to the extent allowable by local code:<br>a. Window and waterproofing membranes, door and window frames and siding.<br>b. Flooring, ceiling tiles and wall coverings.<br>c. Piping and electrical cables, conduits and junction boxes.<br>d. Sound and thermal insulation.<br>e. Upholstered furniture and furnishings, textiles and fabrics. | OPTIMIZATION  | The product don't contain halogenated flame retardants  |   |
|  |                              | 3. Phthalate (Plasticizers) Limitation | DEHP, DBP, BBP, DINP, DIDP or DNOP (often found in polyvinyl chloride [PVC]) are limited in the following components to 0.01% (100 ppm):<br>a. Flooring, including resilient and hard surface flooring and carpet.<br>b. Wall coverings, window blinds and shades, shower curtains, furniture and upholstery.<br>c. Plumbing pipes and moisture barriers.   | OPTIMIZATION  | In accordance with US Consumer Product Safety Improvement Act 2008 (CPSIA) (H.R.4040) Title I, Section 108 & California Proposition 65 & Annex XV II item 51&52 of the REACH Regulation (EC) No. 1907/2006 and amendment No. 552/2009, the product contains less than 100ppm. |   |
|  |                              | 5. Urea-Formaldehyde Restriction       | Urea-formaldehyde presence is limited in the following components to 100 ppm:<br>a. Furniture or any composite wood products.<br>b. Laminating adhesives and resins.<br>c. Thermal insulation.  | OPTIMIZATION  | The product contains urea-formaldehyde less than 100ppm.  |   |
|  | Comfort                      | 74. Exterior Noise Intrusion           | Part 1. Sound Pressure Level  | Each regularly occupied space meets the following sound pressure level as measured when the space and adjacent spaces are unoccupied, but within 1 hour of normal business hours:<br>a. Average sound pressure level from outside noise intrusion does not exceed 50 dBA. | PRECONDITION  | 1. The product has Ln,w =42db according to the standard ISO 10140-3<br>2. The product has Rw=68db according to the standard ISO 14140-2 |
|  |                              | 79. Internally Generated Noise         | Part 1. Sound Masking Limits  | If sound masking systems are used, sound levels fall within the following range, when measured from the nearest workspace:<br>a. Open workspaces: 45 - 48 dBA.<br>b. Enclosed offices: 40 - 42 dBA  | OPTIMIZATION  | 1. The product has Ln,w =42db according to the standard ISO 10140-3<br>2. The product has Rw=68db according to the standard ISO 14140-2 |

END OF DOCUMENT