NU Green MR50® No Added Formaldehyde (NAF) medium density fiberboard is the most eco-friendly moisture resistant solution. This green, high-quality, versatile MDF is FSC® (Forest Stewardship Council®) certified and an Eco-Certified Composite™ (ECC) by the Composite Panel Association (CPA). It contains 100% of recycled and recovered wood fiber (pre-consumer), which saves trees and avoids landfill.

**VALIDATED ECO-DECLARATION**

<table>
<thead>
<tr>
<th>PRODUCT SPECIFICATIONS</th>
<th>ENVIRONMENTAL IMPACTS</th>
<th>TECHNICAL PERFORMANCES</th>
<th>MANUFACTURER’S ENVIRONMENTAL MANAGEMENT</th>
<th>CERTIFICATIONS AND CONFORMITY REPORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference</td>
<td>Life Cycle Assessment</td>
<td>Performance tests</td>
<td>ISO 14001 Certification</td>
<td>CARB 93120 Compliant</td>
</tr>
<tr>
<td>Medium Density Fiberboard (MDF) NU Green MR50®</td>
<td>-</td>
<td>ANSI A208.2-2009 (Grade 155)/ASTM D1037/ASTM E84</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Final manufacturing location</td>
<td>Product’s carbon footprint</td>
<td>Expected life</td>
<td>Extended Producer Responsibility (Take back program)</td>
<td></td>
</tr>
<tr>
<td>Mont-Laurier, Quebec J9L 3W3 CANADA</td>
<td>Environmental Product Declaration</td>
<td>-</td>
<td>Corporate Sustainability Reporting (CSR: GRI, ISO 26000,BNQ 21000 or other)</td>
<td></td>
</tr>
<tr>
<td>Composition</td>
<td>Declaration of chemical ingredients</td>
<td>ISO 14025:2006, Type III</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Wood fibers, diisocyanate resin, water, wax</td>
<td>1,000 ppm</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Recycled content</td>
<td>Type of declaration</td>
<td>Performance tests</td>
<td>ISO 14001 Certification</td>
<td></td>
</tr>
<tr>
<td>Pre-consumer: 90% - 92%</td>
<td>HPD® version 1.0</td>
<td>ANSI A208.2-2009 (Grade 155)/ASTM D1037/ASTM E84</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Post-consumer: 0%</td>
<td>Health Product Declaration®</td>
<td>Expected life</td>
<td>Extended Producer Responsibility (Take back program)</td>
<td></td>
</tr>
<tr>
<td>Regional content</td>
<td>Emission test</td>
<td>-</td>
<td>Corporate Sustainability Reporting (CSR: GRI, ISO 26000,BNQ 21000 or other)</td>
<td></td>
</tr>
<tr>
<td>The origin and extraction location of raw materials have been documented for 90% - 92% of the final product weight ratio.</td>
<td>VOCs</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>FSC® Certification</td>
<td>Formaldehyde</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>RA-COC-002726</td>
<td>≤ 0.02 ppm</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>(When specified)</td>
<td>Others</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Rapidly renewable materials</td>
<td>CARB 93120 (Phase 2) Compliant</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Biobased materials</td>
<td>No-Added Formaldehyde (NAF) Certified</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Uniboard Canada Inc. is a leading North American manufacturer of engineered wood products, with installed capacity of over 640 million square feet of raw particleboard, high-density and medium-density fiberboard, of which over 50% is converted into value-added melamine, laminated and engineered flooring products.

5555, Ernest Cormier Street, Laval, Quebec H7C 2S9 CANADA
www.uniboard.com

MasterFormat®: 06 42 00
Validated Eco-Declaration: VED16-1068-05
Original issue date: 2016/05
Period of validity: 2016/05 to 2017/05
Uniboard NU Green MR50® is certified No-Added Formaldehyde (NAF) by the California Air Resource Board (CARB). No formaldehyde resin is used during the manufacturing process. Its ultra low emissions formaldehyde (ULEF) are no greater than those released by wood. The NU Green MR50® NAF MDF exceeds CARB Phase 2 standards.

**ATTRIBUTES**

### RECYCLED CONTENT

<table>
<thead>
<tr>
<th>Components</th>
<th>Weight ratio</th>
<th>Pre-consumer</th>
<th>Post-consumer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood fibers</td>
<td>90% - 92%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Final product</td>
<td></td>
<td>90% - 92%</td>
<td>0%</td>
</tr>
</tbody>
</table>

NU Green MR50® 100% 90% - 92%

Validated Eco-Declaration - Recycled Content
Methodology: on-site audit, supply chain evaluation, analysis and validation of the recycled content data according to the weight ratio of each of the components used in manufacturing the final product.

### REGIONAL CONTENT

<table>
<thead>
<tr>
<th>Weight ratio</th>
<th>Final manufacturing location</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Mont-Laurier, Quebec J9L 3W3 CANADA</td>
</tr>
</tbody>
</table>

Validated Eco-Declaration - Regional Content
Methodology: on-site audit, supply chain evaluation, analysis and validation of the regional content data according to the weight ratio of each of the components used in manufacturing the final product.

<table>
<thead>
<tr>
<th>Product components</th>
<th>Weight ratio</th>
<th>Extraction locations</th>
<th>Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood fibers</td>
<td>90% - 92%</td>
<td>Quebec and Ontario</td>
<td>Road</td>
</tr>
<tr>
<td>Water</td>
<td>4% - 5%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Diisocyanate Resin</td>
<td>2% - 4%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Wax</td>
<td>0% - 1%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

The extraction location has been documented for 90% - 92% of materials of the final product components, based on weight ratio.

The data included in this Environmental Data Sheet has been provided by the client and the suppliers, who are responsible for its veracity and the integrity. Vertima follows a rigorous protocol, including an on-site audit of the factory, an audit of the manufacturer’s supply chain documentation, and the analysis and validation of all supporting documents. However, Vertima cannot be held responsible for false or misleading information that may cause any loss or damage suffered, in all or in part, caused by errors and omissions relative to the data collection, compilation and/or interpretation. The analysis protocol used by Vertima is available upon request.

©Copyright 2016 by Vertima inc.
1. HARVEST LOCATIONS OF WOOD FIBERS: (Details available upon request)

Canada: Quebec and Ontario (Shipped by road to Uniboard Mont-Laurier mill)
ATTRIBUTES (CONTINUED)

FSC® CERTIFICATION

FSC®-Certified NU Green MR50® (When specified)

<table>
<thead>
<tr>
<th>NU Green MR50®</th>
<th>% Wood Component</th>
<th>% FSC®-Certified Wood</th>
<th>Total % FSC®-Certified wood used in the final assembly of the product versus the total weight of the wood components (based on weight ratio)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood fibers</td>
<td>90% - 92%</td>
<td>90% - 92%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Uniboard mill Certification number Type of certification Period of validity

Mont-Laurier, Quebec CANADA RA-COC-002726 Controlled wood, FSC Mix 2012/11/05 to 2017/11/05

Validated Eco-Declaration - FSC® Certification
Methodology: on-site audit, supply chain evaluation and validation of FSC® certification documents confirming the type of certification and calculation, based on FSC certified wood weight ratio in the final product.

ENVIRONMENTAL DATA SHEET
NU GREEN MR50®

INGREDIENTS ET EMISSIONS

DECLARATION OF CHEMICAL INGREDIENTS

Type of declaration: Health Product Declaration® (HPD®) version 1.0
Period of validity: March 2016 to March 2019
The content of Uniboard NU Green MR50® was assessed for health hazard warnings as required using Pharos1.


The Health Product Declaration® and logo is owned by the Health Product Declaration® Collaborative and is used with permission.

Declaration: ☑ Self-declared ☐ Third Party
Ingredients inventory threshold: 1,000 ppm
Full disclosure of intentional ingredients: Yes
Full disclosure of known hazards: Yes

Hazards associated with the product ingredients
Contents in Descending Order of Quantity
Wood dust - unspecified, WATER, METHYLENE BISPHENYL DIISOCYANATE (PURE MDI), POLYMERIC MDI (PMDI), Slack Wax (petroleum), DIPHENYLMETHANE DIISOCYANATE (MDI) - NON ISOMER SPECIFIC, PARAFFIN OIL

The HPD Standard is solely a declaration of product content and direct health hazards associated with exposure to its individual contents. It is not an assessment of risks associated with actual use of the product. It does not address the potential health impacts of substances used or created during manufacture that do not appear in the final product as residuals, nor substances created during combustion or other other degradation processes.

Highest concern GreenScreen® scores: List Translator Benchmark 12

☐ PBT (persistent, bioaccumulative Toxic)
☐ Cancer
☐ Gene Mutation
☐ Development
☐ Reproductive
☐ Endocrine
☐ Respiratory
☐ Neurotoxicity
☐ Mammal
☐ Skin or Eye
☐ Aquatic toxicity
☐ Land toxicity
☐ Physical hazard
☐ Global warming
☐ Ozone depletion
☐ Multiple
☐ Unknown

1Pharos Project: Database that provides human and environmental health information of chemicals, materials and building products (https://www.pharosproject.net).
2Green Screen scores (GS) Benchmarks of chemical ingredients: Benchmark 1 (Avoid, chemical of high concern), Benchmark 2 (Use but search for safer substitutes), Benchmark 3

The data included in this Environmental Data Sheet has been provided by the client and the suppliers, who are responsible for its veracity and the integrity. Vertima follows a rigorous protocol, including an on-site audit of the factory, an audit of the manufacturer’s supply chain documentation, and the analysis and validation of all supporting documents. However, Vertima cannot be held responsible for false or misleading information that may cause any loss or damage suffered, in all or in part, caused by errors and omissions relative to the data collection, compilation and/or interpretation. The analysis protocol used by Vertima is available upon request.

©Copyright 2016 by Vertima inc.
The data included in this Environmental Data Sheet has been provided by the client and the suppliers, who are responsible for its veracity and the integrity. Vertima follows a rigorous protocol, including an on-site audit of the factory, an audit of the manufacturer's supply chain documentation, and the analysis and validation of all supporting documents. However, Vertima cannot be held responsible for false or misleading information that may cause any loss or damage suffered, in all or in part, caused by errors and omissions relative to the data collection, compilation and/or interpretation. The analysis protocol used by Vertima is available upon request.


**TABLE OF INGREDIENTS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>CAS</th>
<th>Weight Ratio</th>
<th>GreenScreen</th>
<th>Note(s)</th>
<th>(for more details refer to the HPD®)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood fibers</td>
<td>Main component</td>
<td>-</td>
<td>90% - 92%</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>Humidity</td>
<td>7732-18-5</td>
<td>4% - 5%</td>
<td>Benchmark 4</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Methylene Diisocyanate (MDI)</td>
<td>Resin: component A</td>
<td>101-68-8</td>
<td>0.8% - 2%</td>
<td>LT-U</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Polymeric (MDI)</td>
<td>Resin: component C</td>
<td>9016-87-9</td>
<td>0.8% - 2%</td>
<td>LT-U</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Slack Wax</td>
<td>Wax</td>
<td>64742-61-6</td>
<td>0% - 1%</td>
<td>LT-1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Diphenylmethane diisocyanate (MDI)</td>
<td>Resin: component B</td>
<td>26447-40-5</td>
<td>0.1% - 0.4%</td>
<td>LT-U</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Paraffin oil</td>
<td>Monomer</td>
<td>8012-95-1</td>
<td>Residual</td>
<td>LT-P1</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

1 GS List Translator (LT) scores of chemical ingredients: LT-1, likely GS Benchmark 1; LT-P1, possible GS Benchmark 1; U-LT or LT-UNK, present on a GS Specified Lists but there is insufficient information to classify the hazard as LT-1 or LT-P1 (does not mean the chemical is safe).


**TECHNICAL PERFORMANCES**

**PERFORMANCE TESTS**

Non-exhaustive list. See NU Green MR50® product specifications sheet.

- Medium Density Fiberboard (MDF), Standard ANSI A208.2-2009 (Grade 155);
- Flame Spread Index: Class 2 or B ULC 723-10 (ASTM E84);
- Cycle accelerated aging test from ASTM D1037, complies with ANSI A208.2 MR30;
- 24-hour water submersion test from ASTM D1037, complies with ANSI A208.2 MR50 requirements;
- Formaldehyde emissions test: Phase 2 of CARB ATCM 93120 and NAF Certified.
MANUFACTURER’S ENVIRONMENTAL MANAGEMENT

COMPANY’S COMMITMENT

As one of the North America’s leading producers of engineered wood, Uniboard is convinced that operating a profitable business and maintaining a responsible approach to resources are by no means contradictory aims, but that they are actually mutually beneficial. For Uniboard, environmental protection goes beyond a voluntary commitment and is one of the keystones supporting its corporate strategy.

Uniboard environmental strategy is therefore based on three pillars, which also represent specific areas for action:

**Organization:** Continuous improvement and transparency of processes through management systems.

**Production:** Continuous improvement of production processes in order to further reduce our consumption of energy and raw materials while maintaining the high quality of our products.

**Products:** Concentration of research and development work on fiber residues, lighter density engineered wood and new resin systems are just a few of the initiatives we are constantly engaged in.

EXPECTED LIFE

**Warranty**

Lifetime warranty when NU Green MR50® are used for the purpose for which they have been designed, that is to say for indoor use.
# ENVIRONMENTAL DATA SHEET

## NU GREEN MR50®

### PRODUCT CONTRIBUTION SUMMARY

#### LEED® v4 requirements for Building Design + Construction (BD+C)

New Construction, Core and Shell, School, Retail, Data Centers, Warehouse and Distribution Centers, Hospitality and Healthcare.

#### LEED® v4 requirements for Interior Design + Construction (ID+C)

Commercial Interiors, Retail and Hospitality.

<table>
<thead>
<tr>
<th>MATERIALS AND RESOURCES</th>
<th>POINTS</th>
<th>PRODUCT CONTRIBUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MR</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Building Product Disclosure and Optimization — Sourcing of Raw Materials  
Option 2: Leadership extraction practices  
May also contribute to the location valuation factor if the product is sourced (extracted, manufactured, purchased) within 160 km of the project site. | 1 point | **ATTRIBUTES**  
Recycled Content pre-consumer (90% - 92%) and FSC®-Certified (100%) (When specified) |
| Building Product Disclosure and Optimization — Material Ingredients  
Option 1: Material ingredients reporting | 1 point | **INGREDIENTS AND EMISSIONS**  
HPD® version 1.0 Health Product Declaration® |

### INDOOR ENVIRONMENTAL QUALITY

#### LEED® v4 requirements for homes

Applies to single family homes, low-rise multi-family (one to three stories), or mid-rise multi-family (four to six stories); includes Homes and Multifamily Lowrise and Multifamily Midrise.

<table>
<thead>
<tr>
<th>MATERIALS AND RESOURCES</th>
<th>POINTS</th>
<th>PRODUCT CONTRIBUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MR</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Certified Tropical Wood  | Prerequisite | **ATTRIBUTES**  
Uniboard’s product do not contain tropical species |
| Environmentally Preferable Products  
Option 2: Environmentally Preferable Products  
At least 90% of all materials in each category must meet credit requirements.  
NU Green MR 50® contributes to 0.5 point for FSC®-Certified and to 0.5 point for Recycled Content. | 1 point² | **ATTRIBUTES**  
Recycled Content pre-consumer (90% - 92%) and FSC®-Certified (100%) (When specified) |

### Validated Eco-Declaration:

**VED16-1068-05**  
Period of validity:  
2016/05 to 2017/05

---

1 It is important to consider that the total amount of possible points reflects the number of achievable points in each credit category. The product itself cannot achieve this score, as defined above, but is considered as a beneficial element in order to achieve LEED® credits.

©Copyright 2016 by Vertima inc.