



## Particleboard

Uniboard particleboard stands out from the competition, thanks to its specially bonded, top-quality wood fibers, its smooth surface and exceptional machining ease, making it the ideal choice for commercial and residential applications. Manufactured at our state-of-the-art facilities across North America, Uniboard particleboard is the perfect choice for designers, architects and manufacturers.

## VALIDATED ECO-DECLARATION

PRODUCT SPECIFICATIONS	ENVIRONMENTAL IMPACTS
<b>Reference</b> Particleboard	<b>Life Cycle Assessment</b> -
<b>Final Manufacturing locations</b> Val-d'Or, Quebec J9P 5G6 CANADA Sayabec, Quebec G0J 3K0 CANADA	<b>Product's carbon footprint</b> -
<b>Composition</b> Wood particles, resin, water, scavenger, catalyst, wax	<b>Environmental Product Declaration</b> Industry-wide (generic) ISO 14025:2006, Type III (Nov.2013 to Nov.2018)
ATTRIBUTES	INGREDIENTS AND EMISSIONS
<b>Recycled content</b> Pre-consumer: 80% - 85% Post-consumer: 0%	<b>Declaration of chemical ingredients</b> 1,000 ppm
<b>Regional content</b> The origin and extraction location of raw materials have been documented for 80% - 85% of the final product weight ratio.	<b>Type of declaration</b> HPD® version 1.0 Health Product Declaration®
<b>FSC® Certification</b> (When specified) RA-COC-002726	<b>Emission test</b> -
<b>Rapidly renewable materials</b> -	<b>VOCs</b> -
<b>Biobased materials</b> -	<b>Formaldehyde</b> ≤ 0.09 ppm
	<b>Others</b> CARB 93120 (Phase 2) Compliant

## Product's contribution to LEED® v4

©Copyright 2016 by Vertima inc.

TECHNICAL PERFORMANCES
<b>Performance tests</b> ANSI A208.1-2009 / ASTM E84
<b>Expected life</b> -
MANUFACTURER'S ENVIRONMENTAL MANAGEMENT
<b>ISO 14001 Certification</b> -
<b>Extended Producer Responsibility</b> (Take Back Program) -
<b>Corporate Sustainability Reporting</b> (CSR: GRI, ISO 26000, BNQ 21000 or other) -
CERTIFICATIONS AND CONFORMITY REPORTS
  

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](http://www.uniboard.com)

MasterFormat®: 06 42 00

Validated Eco-Declaration:

**VED16-1068-03**

Original issue date: **2016/05**

Period of validity: **2017/10 to 2018/10**



# ENVIRONMENTAL DATA SHEET

## PARTICLEBOARD



Uniboard uses premium quality wood fibers bonded with a high performance resin made in Quebec.. Its smooth, dense and non-porous surface makes it ideal for laminating and machining. Uniboard particleboard cuts easily and cleanly without chipping, a significant advantage that optimizes production time and minimizes waste.

### ATTRIBUTES

#### RECYCLED CONTENT

Components	Weight ratio	Pre-consumer	Post-consumer
Wood particles	80% - 85%	100%	0%
Final product	Weight ratio	Pre-consumer	Post-consumer
Particleboard	100%	80% - 85%	0%

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.

Vertima's procedure: VERT-032008 -01, First Edition.

#### REGIONAL CONTENT

Weight ratio	Final manufacturing locations
100%	Sayabec, Quebec G0J 3K0 CANADA Val-d'Or, Quebec J9P 5G6 CANADA

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.

Vertima's procedure: VERT-032008-02, First Edition.

Product components	Weight ratio	Extraction locations	Tranportations
Wood particles	80% - 85%	Quebec, New-Brunswick and Ontario	Road
Urea Formaldehyde resin	7% - 8%	N/A	N/A
Water	5% - 6%	N/A	N/A
Others	2% - 5%	N/A	N/A

The extraction location has been documented for 80% - 85% 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.

Validated Eco-Declaration :

**VED16-1068-03**

Period of validity :

**2017/10 to 2018/10**



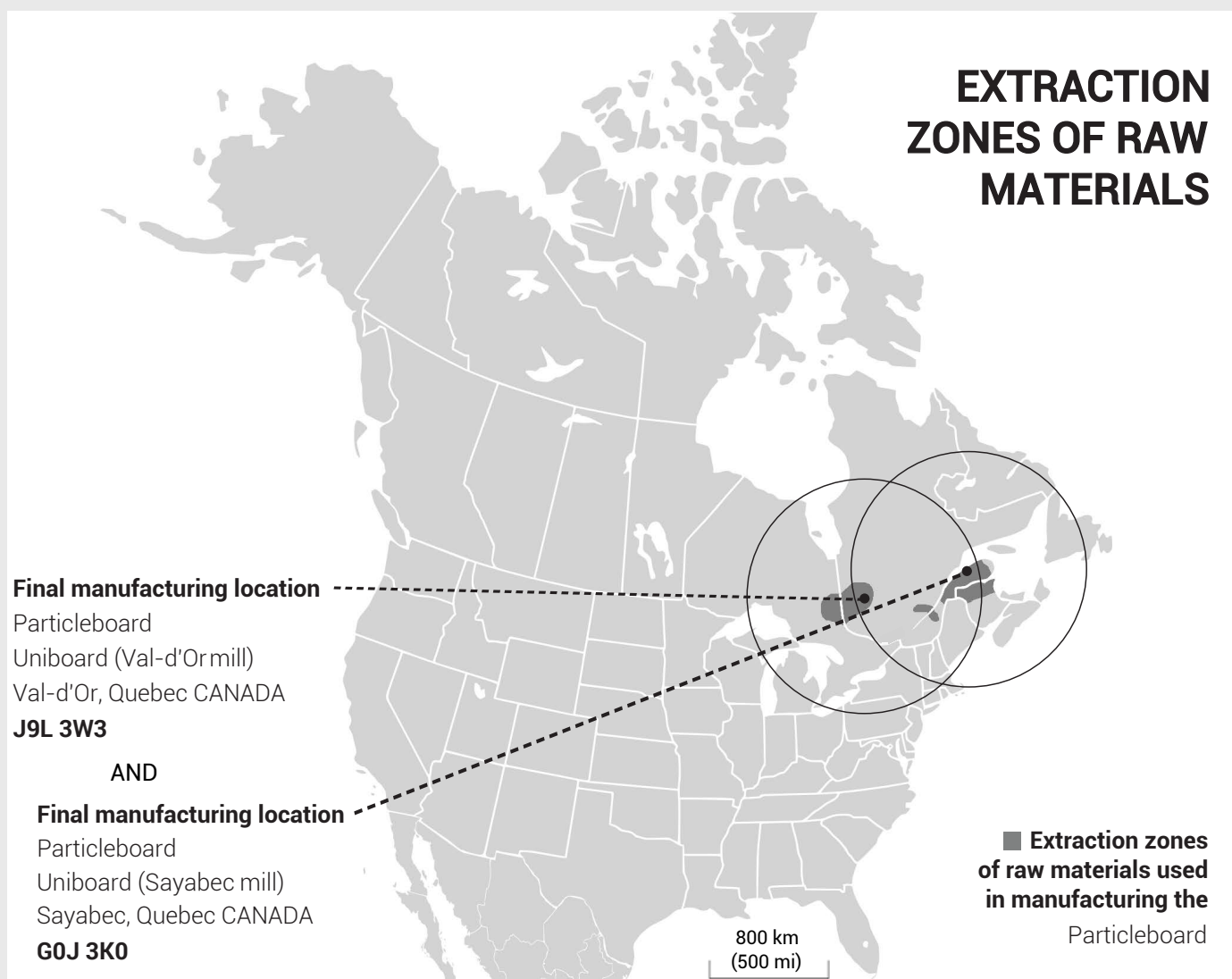
# ENVIRONMENTAL DATA SHEET

## PARTICLEBOARD



### ATTRIBUTES (CONTINUED)

### REGIONAL CONTENT (CONTINUED)



### 1. HARVEST LOCATIONS OF WOOD PARTICLES: (Details available upon request)

Canada: Quebec, New-Brunswick and Ontario (Shipped by road to Uniboard Sayabec mill and to Uniboard Val d'Or mill)

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.

Validated Eco-Declaration:  
**VED16-1068-03**  
Period of validity:  
**2017/10 to 2018/10**



# ENVIRONMENTAL DATA SHEET

## PARTICLEBOARD



### ATTRIBUTES (CONTINUED)

#### FSC® CERTIFICATION

FSC®-Certified Particleboard (when specified)



The mark of responsible forestry

Particleboard	% Wood component	% FSC®-Certified Wood	Total % FSC®-Certified wood used in the final assembly of the product versus the total weight of the wood components (based on weight ratio)
Wood particles	80% - 85%	80% - 85%	100%
Uniboard mills	Certification number	Type of certification	Period of validity
Val d'Or and Sayabec, 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.

Vertima's procedure: VERT-032008-03, First Edition.

### INGREDIENTS ET EMISSIONS

#### ENVIRONMENTAL PRODUCT DECLARATION (EPD)

✓ Industry-wide (generic) ISO 14025:2006, Type III

In 2013, Uniboard collaborated to a life-cycle analysis to implement a generic Environmental Product Declaration for all production of Particleboard. This approach was carried out by the owner of the American Wood Council (AWC) and Canadian Wood Council (CWC) and audited by the UL Environment's Program Operator.

Product Category Rules (PCR)	FPIInnovations: 2011. Product Category Rules (PCR) for preparing an Environmental Product Declaration for North American Structural and Architectural Wood Products, Version 1 (UN CPC 31, NAICS 321), November 8, 2011.		
Functional unit	Scope of LCA	Expected life time	Valid until
1m <sup>3</sup> of particleboard	Cradle-to-Gate	-	Nov. 2013 to Nov. 2018

Table 2: Cradle-to-Gate Impact Assessment Results - 1m<sup>3</sup> North American Particleboard

Impacts Category	Unit	Per m <sup>3</sup> of Particleboard Includes forestry operations
Global warming potential	kg CO <sub>2</sub> eq	315.30
Ozone depletion potential	kg CFC-11 eq	0.0000
Acidification potential	H+ moles eq	188.78
Smog creation potential	kg O <sub>3</sub> eq	35.54
Eutrophication potential	kg N eq	0.1496
Total primary energy consumption	Unit	Per m <sup>3</sup> of Particleboard Includes forestry operations
Non-renewable fossil	MJ	5987.91
Non-renewable nuclear	MJ	555.59

The EPD includes Life Cycle Assessment (LCA) results for all processes up to the point that particleboard is packaged and ready for shipment at the manufacturing gate. The life cycle of particleboard includes the production of wood residues that are a coproduct of lumber milling. The cradle-to-gate product system thus includes forest management, logging, transportation of logs to lumber mills, sawing, transportation of wood residues to particleboard plants, and particleboard production.

Source: EPD Report

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.

Validated Eco-Declaration:  
**VED16-1068-03**  
Period of validity:  
**2017/10 to 2018/10**



# ENVIRONMENTAL DATA SHEET

## PARTICLEBOARD



### 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 particleboard was assessed for health hazard warnings as required using Pharos<sup>1</sup>

**Health Product Declaration® URL:** <https://builder.hpd-collaborative.org/uploads/files/hpds/1469/4118-20160610140147.pdf>

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, Formaldehyde compounds, Urea formaldehyde based, WATER, UREA, Slack Wax (petroleum), AMMONIUM SULFATE, FORMALDEHYDE, 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 1<sup>2</sup>

☐ 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

<sup>1</sup>Pharos Project: Database that provides human and environmental health information of chemicals, materials and building products. (<https://www.pharosproject.net>).

<sup>2</sup>Green Screen scores (GS) Benchmarks of chemical ingredients: Benchmark 1 (Avoid, chemical of high concern), Benchmark 2 (Use but search for safer substitutes), Benchmark 3 (Use but still opportunity for improvement), Benchmark 4 (Prefer, safer chemical).

#### TABLE OF INGREDIENTS

Name	Role	CAS	Weight Ratio	GreenScreen	Note(s) (for more details refer to the HPD®)
Particles wood	Main component	-	80% - 85%	-	-
UF resin	Resin	-	7% - 8%	-	-
Water	Humidity	7732-18-5	5% - 6%	Benchmark 4	-
Urea	Scavenger	57-13-6	1% - 3%	LT-U <sup>1</sup>	-
Slack Wax	Wax	64742-61-6	0% - 0.5%	LT-1	-
Ammonium sulfate	Catalyst	7783-20-2	0% - 0.2%	LT-U	-
Formaldehyde	Monomer	50-00-0	Residual	LT-1	-
Paraffin oil	Monomer	8012-95-1	Residual	LT-P1	-

<sup>1</sup>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).

Validated Eco-Declaration—Declaration of Chemical ingredients

Methodology: validation of the documentation confirming the methodology and reporting of chemical ingredients.

Vertima's procedure: VERT-032009-01, First Edition.

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.

Validated Eco-Declaration:

**VED16-1068-03**

Period of validity:

**2017/10 to 2018/10**



# ENVIRONMENTAL DATA SHEET

## PARTICLEBOARD



### TECHNICAL PERFORMANCES

#### PERFORMANCE TESTS

Non-exhaustive list. See particleboard product specifications sheet.

- Particleboard Standard ANSI A208.1-2009;
- Flame Spread Index: Class 3 or C ULC 723-10 (ASTM E84);
- Formaldehyde emissions test: Phase 2 of CARB ATCM 93120.

#### EXPECTED LIFE

##### Warranty

Lifetime warranty when particleboard panels are used for the purpose for which they have been designed, that is to say for indoor use.

### 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.

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.

Validated Eco-Declaration:  
**VED16-1068-03**  
Period of validity:  
**2017/10 to 2018/10**





# ENVIRONMENTAL DATA SHEET

## PARTICLEBOARD



### 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.

MATERIALS AND RESOURCES		POINTS	PRODUCT CONTRIBUTIONS
MR	<b>Building Product Disclosure and Optimization – Environmental Product Declarations</b> Option 1: Particleboard contributes to this credit due to the availability of a Industry-wide (generic) EPD (type III) and is valued as 1/2 whole product out of the 20 needed for purposes of credit achievement calculation.	1 point	<b>ENVIRONMENTAL IMPACTS</b>  Industry-wide (generic) EPD, Type III
	<b>Building Product Disclosure and Optimization – Sourcing of Raw Materials</b> 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.		<b>ATTRIBUTES</b>  Recycled Content pre-consumer (80% - 85%) and FSC®-Certified (100%) (When specified)
	<b>Building Product Disclosure and Optimization – Material Ingredients</b> Option 1: Material ingredients reporting		<b>INGREDIENTS AND EMISSIONS</b>  HPD® version 1.0 Health Product Declaration®
INDOOR ENVIRONMENTAL QUALITY		POINTS	PRODUCT CONTRIBUTIONS
EQ	<b>Low-Emitting Material</b> Option 1: Product category calculation	Do not contribute <sup>1</sup>	<b>INGREDIENTS AND EMISSIONS</b>  <sup>1</sup> CARB Phase 2 compliant but must be CARB NAF or ULEF compliant to contribute to credit requirements

#### 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.

MATERIALS AND RESOURCES		POINTS	PRODUCT CONTRIBUTIONS
MR Prereq1	Certified Tropical Wood	Prerequisite	ATTRIBUTES
			Uniboard's product do not contain tropical species
MR Credit 2	Environmentally Preferable Products Option 2: Environmentally Preferable Products <sup>2</sup> At least 90% of all materials in each category must meet credit requirements. Particleboard contributes to 0.5 point for FSC®-Certified and to 0.5 point for Recycled Content.	1 point <sup>2</sup>	ATTRIBUTES
			Recycled Content pre-consumer (80% - 85%) and FSC®-Certified (100%) (When specified)
INDOOR ENVIRONMENTAL QUALITY		POINTS	PRODUCT CONTRIBUTIONS
EQ Credit 7	Low-Emitting Products At least 90% of all materials in each category must meet credit requirements. .	Do not contribute <sup>3</sup>	INGREDIENTS AND EMISSIONS
			<sup>3</sup> CARB Phase 2 compliant but must be CARB NAF or ULEF compliant to contribute to credit requirements

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.

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.

Validated Eco-Declaration:  
**VED16-1068-03**  
 Period of validity:  
**2017/10 to 2018/10**

