





**5 PLY DOOR
EnviroDesign™ Series
5-AG/AG45**

The 5 ply door AG, with an agrifiber core, is an interior wood door of high-quality and with added value developed and manufactured for the high-end residential, commercial, architectural and institutional markets.

VALIDATED ECO-DECLARATION

Product's contribution to LEED® v4

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PRODUCT SPECIFICATIONS	ENVIRONMENTAL IMPACTS	TECHNICAL PERFORMANCES
<p>References Agrifiber core (AG): 5-FS/UFAG-EME/ECE/EBE, 5-FS/UFAG45-EME/ECE/EBE.</p>	<p>Life Cycle Assessment -</p>	<p>Performance tests Architectural Woodwork Standards, WDMA Series I.S.1-A, ASTM D5456, ANSI A208.1</p>
<p>Final manufacturing location Lambton, Quebec G0M 1H0 CANADA</p>	<p>Product's carbon footprint -</p>	<p>Expected life 40 years</p>
<p>Composition Agrifiber core, HDF, SCL, veneer, hardwood edges, adhesives, UV finishes.</p>	<p>Environmental Product Declaration - ISO 14025:2006</p>	<p>MANUFACTURER'S ENVIRONMENTAL MANAGEMENT</p>
<p>ATTRIBUTES</p>	<p>INGREDIENTS AND EMISSIONS</p>	<p>ISO 14001 Certification -</p>
<p>Recycled content Pre-consumer: 76.9% Post-consumer: 0%</p>	<p>Declaration of chemical ingredients 1,000 ppm</p>	<p>Extended Producer Responsibility - (Take Back Program)</p>
<p>Sourcing of raw materials The origin and extraction locations have been documented for 88.6% of raw materials used in manufacturing in the final product, based on weight ratio.</p>	<p>Type of declaration HDP® version 2.0 Health Product Declaration®</p>	<p>Corporate Sustainability Report - (CSR: GRI, ISO 26000, BNQ 21000 or others)</p>
<p>FSC® Certification RA-COC-001082 (When specified)</p>	<p>Emission test -</p>	<p>CERTIFICATIONS AND CONFORMITIES</p>
<p>Rapidly renewable materials 59.1%</p>	<p>VOCs See page 6 (Factory-applied finishes)</p>	<p>   </p>
<p>Biobased materials -</p>	<p>Formaldehyde NAF (Agrifiber core and crossband HDF)</p>	<p>Others CARB Phase 2</p>

The FSC® logo enables to identify products containing wood from forests responsibly managed and certified against the Forest Stewardship Council® standards.

The mission of LAMBTON DOORS is to develop and manufacture high-quality, value-added interior wood doors and frames for the North American commercial, architectural and institutional markets.

235, 2nd Avenue, Lambton, Quebec G0M 1H0 CANADA
www.lambtondoors.com

MasterFormat®: **08 14 16**
Validated Eco-Declaration:
VED17-1066-04
Original issue date: **2017/08**
Period of validity: **2017/08 to 2018/08**



ENVIRONMENTAL DATA SHEET

DOOR 5-AG/AG45 ENVIRODESIGN™



Thicknesses

44 mm (1-3/8") to 57 mm (2-1/4"); 20 - 45 minutes

Sizes

1219 mm x 3048 mm (48"x96"); positive and neutral pressure (20 - 45 minutes)

Options

EDGEFENDER: Impact-resistant door edge protector

ASEPTI: Antimicrobial coated surfaces option

Veneer and edges available in various wood species

ATTRIBUTES

RECYCLED CONTENT

Final product	Weight ratio	Pre-consumer	Post-consumer
Door 5-AG/AG45 EnviroDesign™	100%	76.9%	0%
Components (with recycled content)	Weight ratio	Pre-consumer	Post-consumer
Agrifiber core	62.3%	95.0%	0%
HDF	23.7%	75.0%	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, Second Edition.

SOURCING OF RAW MATERIALS

Weight ratio	Final manufacturing location
100%	Lambton, Quebec G0M 1H0 CANADA

Validated Eco-Declaration – Sourcing of raw materials

Methodology: on-site audit, supply chain evaluation, analysis and validation of the sourcing of raw materials data according to the weight ratio of each of the components used in manufacturing the final product.

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

Components	Weight ratio	Extraction locations	Transportation
Agrifiber core (agricultural fibers)	59.1%	China	Boat, road
Agrifiber core (other ingredients)	3.1%	N/A	N/A
HDF (wood)	17.8%	United States (WA, ID, MT)	Train, road
HDF (other ingredients)	5.9%	N/A	N/A
Stiles and rails, SCL (wood)	6.2%	United States (OK, AR, TX)	Road
Stiles and rails, SCL (other ingredients)	2.3%	N/A	N/A
Veneer	2.9%	Canada, United States, International	Boat, road
Hardwood edges	2.6%	Canada, United States	Road
Adhesives and UV finishes	Negligible	N/A	N/A

The origin and extraction locations have been documented for 88.6% of raw materials used in manufacturing in the final product, based on weight ratio.

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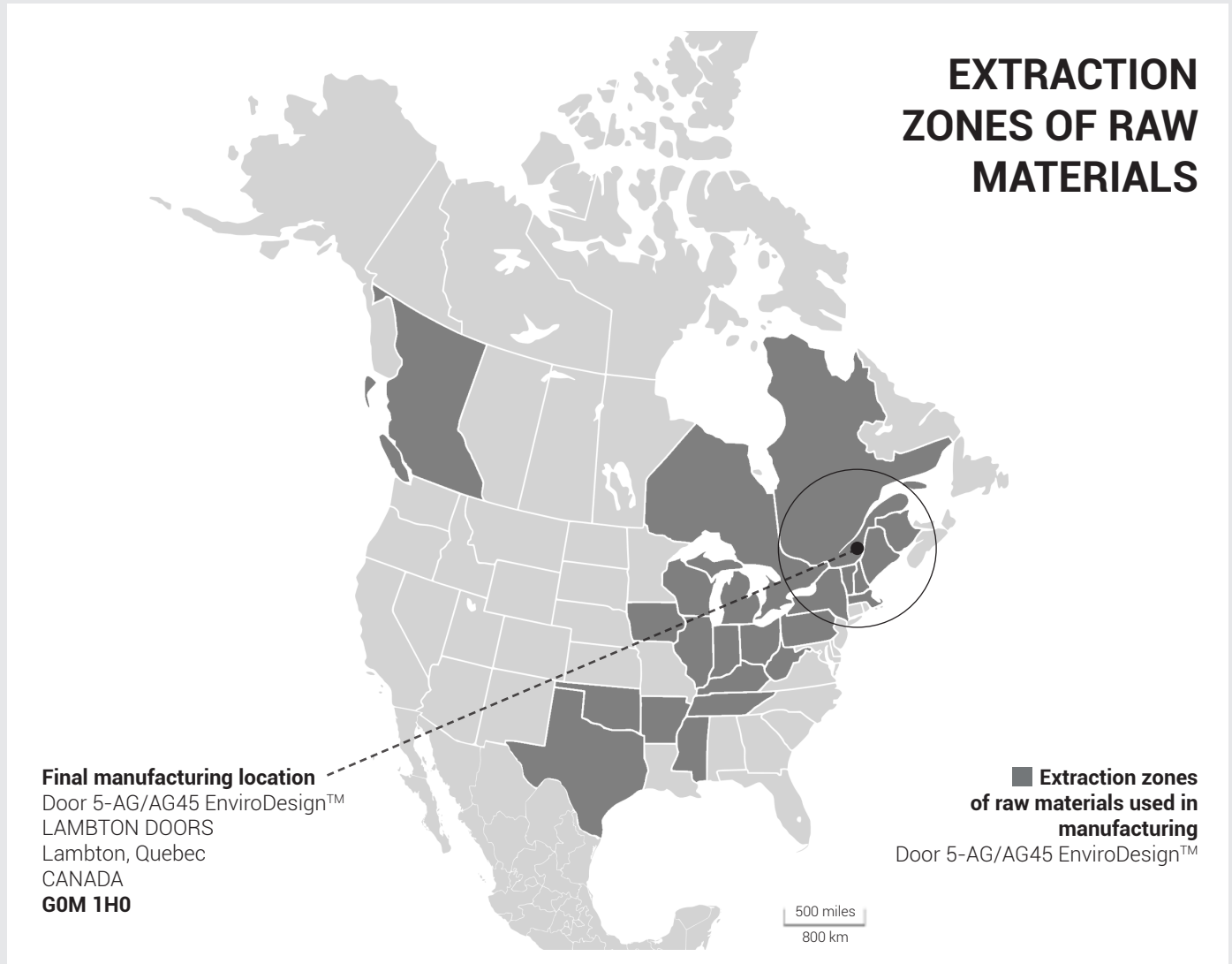
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2017/08 to 2018/08



ATTRIBUTES (CONTINUED)

SOURCING OF RAW MATERIALS (CONTINUED)



1. HARVEST LOCATION OF AGRICULTURAL FIBERS:

- **AGRIFIBER CORE - Asia:** China (not shown on map).

2. HARVEST LOCATIONS OF WOOD:

- **HDF - United States:** Idaho, Montana, Washington.
- **STILES AND RAILS (SCL) - United States:** Oklahoma, Arkansas, Texas.
- **VENEER (Tropical wood) - Africa:** Ghana, Cameroon, Gabon, Congo (not shown on map); **South America:** Brazil (not shown on map).
- **VENEER - Canada:** Ontario, Quebec, British Columbia; **United States:** NY, MI, PA, OH, WV, IN, KY, MS, TN, IA, VT, WI, IL, MA;
Europe: Croatia, Estonia, Romania, Slovenia, Czech Republic (not shown on map).
- **HARDWOOD EDGES - Canada:** Ontario, Quebec, New Brunswick; **United States:** NY, PA, OH, VT, NH, ME.

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ATTRIBUTES (CONTINUED)

FSC® CERTIFICATION

When specified, the EnviroDesign™ door models 5-UFAG-EME/ECE/EBE and 5-UFAG45-EME/ECE/EBE are FSC®-Certified. LAMBTON DOORS then refers to the models 5-FSAG-EME/ECE/EBE and 5-FSAG45-EME/ECE/EBE. Contact LAMBTON DOORS for more details.

 <p>The mark of responsible forestry</p>	Door 5-AG/AG45 EnviroDesign™	% Wood components	% FSC®-Certified wood by volume	% calculated according to total volume of wood components used in the product final assembly versus the total volume of FSC®-Certified wood
	Wood	24.9%	20.6%	82.8%
	LAMBTON DOORS	Certification number	Type of certification	Period of validity
	Lambton, QC CANADA	RA-COC-001082	FSC® MIX	2013/09/20 to 2018/09/19

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, Second Edition.

RAPIDLY RENEWABLE MATERIALS

Final product	Weight ratio	Rapidly renewable content	
Door 5-AG/AG45 EnviroDesign™	100%	59.1%	
Component (with rapidly renewable content)	Weight ratio	Rapidly renewable content	Type of rapidly renewable materials
Agrifiber core	62.3%	95.0%	Cotton or rice stalks

Validated Eco-Declaration – Rapidly Renewable Materials

Methodology: on-site audit, supply chain evaluation, analysis and validation of the rapidly renewable content data according to the weight ratio of each of the components used in manufacturing the final product.

Vertima's procedure: VERT-032008-04, Second Edition.

INGREDIENTS AND EMISSIONS

DECLARATION OF CHEMICAL INGREDIENTS



Type of declaration: Health Product Declaration® (HPD®) version 2.0

Period of validity: November 29th 2016 to November 29th 2019

Summary of product contents and results from screening individual chemical substances against HPD Priority Lists¹ and the GreenScreen for Safer Chemicals®.²

Health Product Declaration® URL: <http://www.hpd-collaborative.org/hpd-public-repository/>

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

Declaration: Prepared by Vertima 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:

This HPD Standard describes a declaration of product content and direct health hazards associated with exposure to its individual contents. The Declaration 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 degradation processes.

Highest concern GreenScreen® Benchmark: List Translator Likely Benchmark 1³

- | | | |
|---|--|---|
| <input type="checkbox"/> PBT (Persistent, Bioaccumulative, Toxic) | <input checked="" type="checkbox"/> Respiratory | <input checked="" type="checkbox"/> Physical hazard |
| <input checked="" type="checkbox"/> Cancer | <input type="checkbox"/> Neurotoxicity | <input type="checkbox"/> Global warming |
| <input type="checkbox"/> Gene Mutation | <input type="checkbox"/> Mammal | <input type="checkbox"/> Ozone depletion |
| <input type="checkbox"/> Development | <input checked="" type="checkbox"/> Skin or eye | <input checked="" type="checkbox"/> Multiple |
| <input type="checkbox"/> Reproductive | <input checked="" type="checkbox"/> Aquatic toxicity | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Endocrine | <input type="checkbox"/> Land toxicity | |

¹Please refer to Annex D of HPD® Open Standard Version 2.0, September 10th 2015. <http://www.hpd-collaborative.org>

²GreenScreen for Safer Chemicals® method: <http://www.greenscreenchemicals.org/>

³GreenScreen (GS) Benchmark scores 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	Weight ratio	CAS ¹	GreenScreen® ²	Note(s) (for more details refer to the HPD®)
Agrifiber panel	Core	62.3%	9016-87-9	LT-UNK	-
HDF	Crossband	23.7%	64742-61-6	LT-1	LT-UNK scores also present
SCL	Stiles and rails	8.5%	9016-87-9 8002-74-2	LT-UNK	-
Veneer	Finishing	2.9%	-	-	-
Hardwood edges	Finishing	2.6%	-	-	-
Adhesives	Assembly	0.1% - 1.0%	108-05-4	LT-P1	LT-UNK scores also present
UV finishes	Finishing	0.1% - 1.0%	14808-60-7	LT-1	LT-P1 and LT-UNK scores also present

¹Only the CAS numbers with the score of highest concern are listed. The complete list of substances can be found in the HPD®.

²GS List Translator (LT) scores of chemical ingredients: LT-1, likely GS Benchmark 1; LT-P1, possible GS Benchmark 1; LT-U or LT-UNK, present on GS Specified Lists but there is insufficient information to classify the hazards 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, Second Edition.

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ENVIRONMENTAL DATA SHEET

DOOR 5-AG/AG45 ENVIRODESIGN™

INGREDIENTS AND EMISSIONS

VOLATILE ORGANIC COMPOUNDS (VOCs)

All adhesives and finishes are applied during the manufacturing of the 5-AG/AG45 EnviroDesign™ Series. In each category of products presented below, the value refers to the VOC content of adhesives and finishes in their liquid state.

ADHESIVES

Manufacturer	Products	VOC content
Dural Division of Multibond Inc.	Different Polyvinyl Acetate (PVAc) based adhesives	1.5 g/L - 24.0 g/L

FINISHES

Manufacturer	Products	VOC content
Can-Lak Inc.	Different UV curable finishes, 100% solid	6.1 g/L - 20.8 g/L

Validated Eco-Declaration – Emissions and Volatile Organic Compounds (VOCs)
Methodology: validation of documents attesting VOCs emissions.
Vertima's procedure: VERT-032009-02, Second Edition.

FORMALDEHYDE

Product Components	Conformity
Agrifiber core	NAF
Crossband HDF	NAF
Stiles and rails, SCL	CARB Exempt

Validated Eco-Declaration—Emissions and formaldehyde
Methodology: validation of the documents attesting the methodology and results of emissions general evaluation and formaldehyde.
Vertima's procedure: VERT-032009-02, Second Edition.

TECHNICAL PERFORMANCES

PERFORMANCE TESTS

LAMBTON DOORS' products are made in conformance with industrial standards:

- Architectural Woodwork Standards: Standards for fabrication, finishing and installation of architectural woodwork;
- WDMA Series I.S. 1-A: Standard for Windows and Doors Manufacturers;
- ASTM D5456: Standard Specification for Evaluation of Structural Composite Lumber Products;
- ANSI A208.1: Standard for particleboards.

Fire resistance:

- Up to 45 minutes neutral or positive pressure;
- CAN/ULC S104: Standard Method for Fire Tests of Door Assemblies;
- NFPA 252: Standard Method of Fire Tests of Door Assemblies;
- UL 10B: Standard for Fire Tests of Door Assemblies;
- UL 10C: Standard for Positive Pressure Fire Tests of Door Assemblies (Category B, Category A optional).

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ENVIRONMENTAL DATA SHEET

DOOR 5-AG/AG45 ENVIRODESIGN™

TECHNICAL PERFORMANCES (CONTINUED)

WARRANTY

All LAMBTON DOORS wood doors and frames carry a lifetime warranty against warp and show-through.

MANUFACTURER'S ENVIRONMENTAL MANAGEMENT PROGRAM

MANUFACTURER'S COMMITMENT

Since the late 1990s, LAMBTON DOORS has been committed to the environmental movement. We are compelled to act in an eco-friendly way because we believe in a transformed construction industry environment that contributes to a sustainable future. Today, the company's sound environmental management dictates our choice of suppliers, manufacturing process development and equipment acquisition, as well as the treatment of our plant residue. It also explains our use of a sophisticated eco-friendly finishing system that supports the vitality of the environment.

Each of our actions is aimed at preserving the health of our planet and that of our plant workers, field workers and end users. Several of our products, including those in our EnviroDesign™ Series with Ultra-Low Emitting Formaldehyde Resins (ULEF) or No-Added Formaldehyde (NAF), contribute to the points score in various product categories leading to LEED® certification.

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ENVIRONMENTAL DATA SHEET

DOOR 5-AG/AG45 ENVIRODESIGN™

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

PRODUCT CONTRIBUTIONS

Building Product Disclosure and Optimization – Sourcing of Raw Materials

MR Option 2: Leadership extraction practices (1 point)
May also contribute to the location valuation factor if the product is sourced (extracted, manufactured, purchased) within 160 km of the project site.

Contribute

ATTRIBUTES

Recycled Content
Pre-consumer (76.9%)
Post-consumer (0%)

FSC® Certification (82.8%) by volume
(when specified)

Building Product Disclosure and Optimization – Material Ingredients

MR Option 1: Material ingredients reporting (1 point)
The door 5-AG/AG45 EnviroDesign™ contributes to this credit due to the availability of Health Product Declarations® and are valued as 1 whole product out of the 20 needed for the purposes of credit achievement calculation.

Contribute

INGREDIENTS AND EMISSIONS

HPD® version 2.0
Health Product Declaration®

INDOOR ENVIRONMENTAL QUALITY

PRODUCT CONTRIBUTIONS

Low-Emitting Materials

EQ Option 1: Product category calculation (1 - 3 points)
Number of points is dependent on the LEED® rating system and the number of compliant categories.

Do not contribute¹

INGREDIENTS AND EMISSIONS

¹Must be tested and determined compliant to the standard method of the California Department of Public Health (CDPH) v1.1-2010.

LAMBTON DOORS provides ULEF and/or NAF composite wood panels for EnviroDesign™ doors depending on model.

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.

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DOOR 5-AG/AG45 ENVIRODESIGN™

PRODUCT CONTRIBUTION SUMMARY (CONTINUED)

LEED® v4 requirements for homes

Applies to single family homes, multi-family (one to three stories), or multi-family (four to six stories). Includes homes and multifamily low-rise and multi-family mid-rise.

MATERIALS AND RESOURCES		PRODUCT CONTRIBUTIONS	
MR Prereq 1	Certified Tropical Wood	Contribute	ATTRIBUTES The door 5-AG/AG45 EnviroDesign™ is available with non-tropical wood species.
MR Credit 2	Environmentally Preferable Products Maximum of 4 points depending on both options in the context of each project. Option 2: Environmentally Preferable Products ² The door 5-AG/AG45 EnviroDesign™ meets at least 1 criterion for this option since the product contains 76.9% of pre-consumer recycled content and is FSC®-Certified when specified. The final product should contain at least 25% of post-consumer recycled content or 50% of pre-consumer recycled content. Wood products must be FSC®-Certified, or USGBC-approved equivalent.	Contribute²	ATTRIBUTES Recycled Content Pre-consumer (76.9%) Post-consumer (0%) FSC® Certification (82.8%) by volume (when specified)
INDOOR ENVIRONMENTAL QUALITY		PRODUCT CONTRIBUTIONS	
EQ Credit 7	Low-Emitting Products (0.5 - 3 points) At least 90% of all materials in each category must meet credit requirements.	Do not contribute³	INGREDIENTS AND EMISSIONS ³ Must be tested and determined compliant to the standard method of the California Department of Public Health (CDPH) v1.1-2010. LAMBTON DOORS provides ULEF and/or NAF composite wood panels for EnviroDesign™ doors depending on model.

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