



HARDWOOD FLOORING -EXPERT ENGINEERED CONSTRUCTION

Wholly manufactured in Canada, the new Lauzon Expert construction meets the needs and requirements of contractors. A hardwood floor that combines the rich look of solid hardwood floor with all the stability of an engineered hardwood floor.

VALIDATED ECO-DECLARATION

PRODUCT SPECIFICATIONS ENVIRON

Reference

Hardwood flooring - Expert engineered construction

Final manufacturing locations

St-Norbert, Quebec JOK 3C0 CANADA Maniwaki, Quebec J9E 1N8 CANADA

Composition

Softwood substrate, dry solid sawn hardwood, adhesive and finishes

ATTRIBUTES

Recycled content

Pre-consumer: 0% | Post-consumer: 0%

Regional content

The extraction location has been documented for 99.0% of raw materials used in manufacturing the final product, based on a weight ratio.

FSC® Certification (When specified)

SAI-COC-003198

Rapidly renewable materials

Biobased materials

ENVIRONMENTAL IMPACTS

Life Cycle Assessment

Product's carbon footprint

Environmental Product Declaration

ISO 14025:2006, Type III

INGREDIENTS AND EMISSIONS

Declaration of chemical ingredients

1,000 ppm

Type of declaration HPD[®] Version 2.1.1 Health Product Declaration[®]

Emissions test CDPH

VOCs

Depending on finishes type (factory applied)

Formaldehyde

Others

Pure Genius,

ACTiO₂TM technology

Product's contribution to LEED® v4

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TECHNICAL PERFORMANCES

Performance tests

Tests performed by Lauzon Flooring according to ASTM standards

Expected life

lifelong (Depending on usage)

MANUFACTURER'S ENVIRONMENTAL MANAGEMENT

ISO 14001 Certification CERT-0083536

Extended Producer Responsability (Take Back Program)

Corporate Sustainability Reporting (CSR: GRI, ISO 26000, BNQ 21000 or other)

CERTIFICATIONS AND CONFORMITY REPORTS







Since 1985, we are committed to marrying the artistry of finely crafted wood with new technologies to offer you resilient, naturally comfortable and – equally important – comforting floors. It's unique business model, scale, know-how and commitment to responsibly managing its resources, that's what makes Lauzon such a special brand.

2101 Côte des Cascades, Papineauville, Quebec JOV 1R0 CANADA www.lauzonflooring.com

Master Format®: **09 64 29** Validated Eco-Declaration:

VED16-1067-03

Original issue date: 2016/05 Changes made on : 2019/09/11 Period of validity: 2019/11 to 2020/11



HARDWOOD FLOORING - EXPERT ENGINEERED CONSTRUCTION





- Stable, Flexible, Efficient and Eco-Friendly
- · Available in many species
- Available in sizes: 3 1/8", 4 1/8" and 5 3/16"

ATTRIBUTES

RECYCLED CONTENT

Hardwood Flooring - Expert engineered construction	Weight ratio	Pre-consumer	Post-consumer
3 1/8", 4 1/8" and 5 3/16"	100%	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, First Edition.

REGIONAL CONTENT

Weight ratio	Final manufacturing locations
100%	St-Norbert, Quebec JOK 3C0 CANADA Maniwaki, Quebec J9E 1N8 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	Transportation
Softwood substrate	63.0%	Canada and US	Road
Dry solid sawn hardwood	36.0%	Canada and US	Road
Adhesive and finishes	<1%	N/A	N/A

^{*}The extraction location have been documented for 99.0% of materials of the final product components, based on weight ratio.

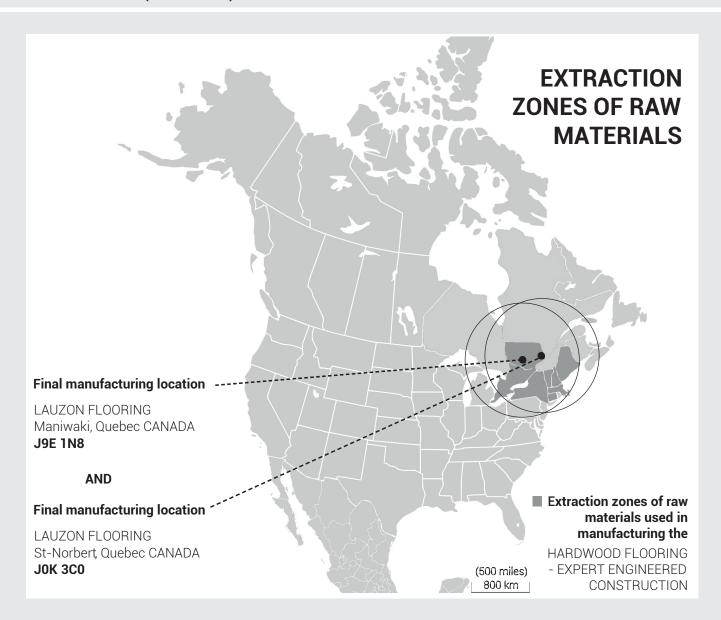






ATTRIBUTES (CONTINUED)

REGIONAL CONTENT (CONTINUED)



1. HARVEST LOCATION OF HARDWOOD: (Details available upon request)

Canada: Quebec and Ontario

United States: Connecticut, Massachusetts, New Hampshire, New York, Vermont



FNGINFFRED HARDWOOD FLOORING - FXPFRT



ATTRIBUTES (CONTINUED)

FSC® CERTIFICATION

FSC®-certified Lauzon Expert engineered hardwood floors are available for the following wood species: **Hard Maple**, **Red Oak** and **Beech**. (When specified)



Hardwood flooring - Expert engineered construction	% Wood component	% FSC [®] -certified wood	% calculated according to total weight of wood components used in the product final assembly versus the total weight of FSC®- Certified wood				
Wood	99.0%	91.5%	100%				
Lauzon Flooring	FSC Code	Type of certification	Period of validity				
St-Norbert & Maniwaki, Quebec CANADA	FSC-C143353	Multisite, FSC [®] MIX	2018/09/12 to 2023/09/10				

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 weight ratio, of the wood that is FSC®-certified in the final product. Vertima's procedure: VERT-032008-03, First Edition.

INGREDIENTS AND EMISSIONS

DECLARATION OF CHEMICAL INGREDIENTS



Type of declaration: Health Product Declaration® (HPD®) version 2.1.1

Period of validity: September 4, 2019 to Septembre 4, 2022

The content of Lauzon Flooring's hardwood flooring - Expert engineered construction was assessed for health hazard warnings as required using Pharos¹.

HPDC repository 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 inc., third party approved by HPDC

Ingredients inventory threshold: 1,000 ppm Full disclosure of intentional ingredients: No Full disclosure of known hazards: Yes

Hazard(s) 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: Benchmark 12

- ☐ PBT (Persistent, Bioaccumulative, Toxic)
- Cancer
- Gene mutation
- Development
- Reproductive ■ Endocrine

- Respiratory□ Neurotoxicity
- Mammal
- □ Land toxicity□ Aquatic toxicity
- Skin or eye
- ☐ Physical hazard
- Global warming
- ☐ Ozone depletion
- □ Multiple
- Aquatic
- Unknow

¹Pharos Project: Database that provides human and environmental health information of chemicals, materials and building products (https://www.pharosproject.net). ²GreenScreen 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).

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 on request.

Validated Eco-Declaration:

VED16-1067-03

Period of validity:
2019/11 to 2020/11





INGREDIENTS AND EMISSIONS (CON TINUED)

DECLARATION OF CHEMICAL INGREDIENTS (CONTINUED)

TABLE OF INGREDIENTS

Name	Role	CAS ¹	Weight Ratio	GreenScreen®,2	Note (s) (for more details refer to the HPD®)
SPF Wood	Substrate	-	61.6%	Not Screened	Special Condition: BIO
Harwood	Decorative lamella	-	35.7%	Not Screened	Special Condition: BIO
Adhesive 1	Binding	Undisclosed	1.4%	LT-1	LT-P1, LT-UNK and BM-4 Scores also present
Finish system #1	Alternate Finish	107-21-1 14807-96-6	0.0%-1.3%	BM-1	LT-1, LT-P1, LT-UNK, BM-2 and BM-4 Scores also present
Finish system #2	Alternate Finish	14807-96-6	0.0%-1.3%	BM-1	LT-1, LT-P1, LT-UNK and BM-4 Scores also present
Finish system #3	Alternate Finish	107-21-1 14807-96-6	0.0%-1.3%	BM-1	LT-1, LT-P1, LT-UNK, BM-2 and BM-4 Scores also present
Finish system #4	Alternate Finish	14807-96-6	0.0%-1.3%	BM-1	LT-1, LT-P1, LT-UNK and BM-4 Scores also present
Optional top layer	Air-purifying layer	7732-18-5	0.0%-0.1%	BM-4	-

¹Only the CAS numbers with the score of highest concern are listed.

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.

FORMALDEHYDE

Testing Method

Test report on formaldehyde emissions from wood products - Method A (Faces Only)



Product Type: HARDWOOD FLOORING - EXPERT ENGINEERED CONSTRUCTION Test ID#: FSC878

Test date: 4/20/2015

Analytical Lab: HPVA Laboratories Analytical Procedure: NIOSH 3500 Test Method: ASTM D6007-14

Method A (Faces only): This method is for customers who are primarily concerned with the amount of formaldehyde to which they are currently exposed. By testing with only the faces exposed in the chamber, this simulates real world exposure and is also the method specified in the ANSI/HPVA EF American National Standard for Engineered Wood Flooring.

Test Data	Value	Units
Test Chamber	3.0	N/A
Test Chamber Volume	2.31	ft ³
Loading Ratio (ft²/ ft³)	1.04	ft²/ft³
# of Specimen in Test	6.0	N/A
Total Surfaces Exposed	6.0	Surfaces (faces only)
Test Temperature; (range)	77.8; (76.7-78.9)	°F
Relative Humidity; (range)	46.5; (45.1-50.0)	% RH
Sample Collection Time	60.0	Min.
Test Result: (At Test Conditions)	BLQ*	ppm
Test Result: (Corrected to 77° Fand 50% RH)	BLQ*	ppm

 $\star BLQ$: Below limit of quantitation. HPVA Laboratories' BLQ is 0.008 ppm.



²GS 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





INGREDIENTS AND EMISSIONS (CONTINUED)

PURE GENIUS TECHNOLOGY

What is Pure Genius® Technology



Pure Genius is a light-activated, air-purifying agent made of titanium dioxide, which is integrated into Lauzon's Titanium floor finish. Pure Genius helps improve several ways while bettering air quality:

- Reduces symptoms of respiratory (asthma & allergies) and immunosuppressive disorder;
- Actively suppresses potentially carcinogenic emissions (formaldehyde, solvents, voc's an other air-borne pollutants):
- Decomposes up to 99.6% of bacteria, viruses and mold;
- Reduces stubborn odors (cooking, smoke, pets, etc.);
- Disperses hardwood floor cleaners more easily, giving you cleaner floor.

All these criterias have been tested and validated by independent laboratory, as defined below:

Photocatalytic activity test - NOX removal - ISO 22197-1 standard

Test summary

Under standardized lighting conditions, the Pure Genius sample shows high activity in the degradation of NOX, translating in 7.8 lbs of NOX per year per 454 sq ft of hardwood floor.

Source: Photocat A/S, Roskilde (Danemark) August, 2013

Photocatalytic activity test - Formaldehyde removal - ISO 22197-4 standard

Test summary

In standardized test conditions, a formadehyde degradation index of 28 PPB was obtained, which equals, over the course of a single hour, to the removal of up to 17.5% of formaldehyde.

Source: D-Tox Laboratory, M. Bahnemann Ph. D., Hanovre (Germany) August, 2013

Photocatalytic activity test - Acetaldehyde removal - ISO 22197-42 standard

Test summary

An acetaldehyde degradation index of 400 PPB was obtained in standardized test conditions. Over the course of a single hour, up to 40% of a constant flow of acetaldehyde compound contaminants were removed. Source: D-Tox Laboratory, M. Bahnemann Ph. D., Hanovre (Germany) December, 2013

Anti-microbial properties - ISO 27447 2009 standard

Test summary

After 8 hours in standardized conditions, Pure Genius had reduced E. coli (ATCC 8739) of 99.65%, S. aureus (ATCC 6538P) of 99.63%, and K.pneumoniae (ATCC 4352) of 99.7%.

Source: Tile Council of North America, US, Report TCNA-684-13 Octobre, 2013

* More details on laboratory tests available from Lauzon Flooring's website.



HARDWOOD FLOORING - EXPERT ENGINEERED CONSTRUCTION



TECHNICAL PERFORMANCE

PERFORMANCE TESTS

Tests carried out by Lauzon according to standard are listed below:

- ASTM D3359-02 -Standard Test Methods for Measuring Adhesion by Tape Test;
- ASTM D4060-14 -Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser;
- NEMA LD 3-2005 High-Pressure Decorative Laminates;
- ASTM D4442-15 -Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials;
- ASTM D1792 Standard Test Method for Long-Term Removability Properties of Emulsion Floor Polishes.

EXPECTED LIFE

LIFELONG

(Depending on usage)

WARRANTY

- Limited lifetime structural warranty;
- Aluminium oxide finish, Essential collection (25 years) residential applications only;
- Titanium finish, Ambiance collection (30 years) residential applications only;
- Titanium finish, Designer collection (35 years) residential applications only;
- Five (5)-year light commercial finish limited warranty on Titanium finish.

MANUFACTURER'S MANAGEMENT PROGRAM

CERTIFICATION (ISO 14001:2015)

Environmental Management System

Lauzon Forestry Resources Inc. 175, rue Alexandre, Thurso, Quebec JOX 3BO CANADA

Certification number	Certification agency	Period of validity
CERT-0105410	SAI Global	Until September, 2020

ISO 14001

Validate Eco-declaration - ISO Certification Methodology: validation of documents attesting the ISO Certification.

Vertima's procedure: VERT-032009-03, First Edition.

MANUFACTURER'S ENVIRONMENTAL MANAGEMENT

COMPANY'S COMMITMENT

At Lauzon, with our vertical integration business model, including our ISO 14001 and Rainforest Alliance certifications, all our FSC®-Certified hardwood floors - such as our Canadian Hard Maple, which boasts one of the shortest carbon trails in the industry, our modern sawmill and our zero waste policy, we aim to do things right from forest to floor. All our floors meet the strictest standards for toxic emissions. With our exclusive Pure Genius®, we take purity to a whole new level by allowing your floor to purify the air the way trees do. We share your concerns for a greener, healthier planet.







PRODUCT CONTRIBUTION SUMMARY

LEED® v4 requirements for Building Design + Construction (BD+C)New Construction, Core Shell, School, Retail, Data Centers, Warehouse and Distribution Centers, Hospitality and Healtcare.

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

Commercial Interiors, Retail and Hospitality.

MATERIALS AND RESOURCES		POINTS	PRODUCT CONTRIBUTION
	Building Product Disclosure and Optimization —Sourcing of Raw Materials	1	ATTRIBUTES
MR	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.	point	FSC®-certified (100%) (When specified, see page 4)
	Building Product Disclosure and Optimization		INGREDIENTS AND EMISSIONS
MR	—Material IngredientsOption 1: Material ingredients reporting	point	Health Product Declaration® HPD® Version2.1.1
INDOOR ENVIRONMENTAL QUALITY		POINTS	PRODUCT CONTRIBUTION
	Low-Emitting Materials		INGREDIENTS AND EMISSIONS
EQ	Option 1: Product category calculation For the flooring category 100% of flooring must meet the requirements.	Contribute	The product has been tested in accordance with the CDPH Standard Method v1.2-2017

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 CONTRIBUTION
			ATTRIBUTES
MR Prereq 1	Certified tropical wood	Prerequisite	¹ Hardwood Flooring - Expert Engineered construction does not contain any tropical wood species
	Environmentally Preferable Products		ATTRIBUTES
MR Credit 2	Option 2: Environmentally Preferable Products ² At least 90% of all materials in each category must meet credit requirements. Hardwood flooring - Expert engineered construction from Lauzon Flooring contributes to 0.5 point for FSC®-certified.	0.5 point ²	FSC®-certified (100%) (When specified, see page 4)
INDOOR E	INDOOR ENVIRONMENTAL QUALITY		PRODUCT CONTRIBUTION
	Low-Emitting Products At least 90% of all materials in each category must meet credit requirements.	Contribute	INGREDIENTS AND EMISSIONS
EQ Credit 7			The product has been tested in accordance with the CDPH Standard Method v1.2-2017

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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PRODUCT CONTRIBUTION SUMMARY

WELL BUILDING STANDARD® v1 (February 2016)

Core and Shell New and Existing Buildings New and Existing Interiors

	AIR	P - PRECONDITION O - OPTIMIZATION	PRODUCT CONTRIBUTION
04	VOC REDUCTION Part 3: Flooring The VOC content of all newly installed flooring must meet all limits set by the following, as applicable: a. California Department of Public Health (CDPH) Standard Method v1.1-2010.	PRECONDITION The product is compliant	INGREDIENTS AND EMISSIONS Hardwood flooring - Expert engineered construction does contribute because it has been tested in accordance with the CDPH Standard Method v1.2-2017
25	TOXIC MATERIAL REDUCTION Part 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: b. Flooring, ceiling tiles and wall coverings.	OPTIMIZATION* The product is compliant	Hardwood flooring - Expert engineered construction contribute because it does not contain any halogenated flame retardants
25	TOXIC MATERIAL REDUCTION Part 5: Urea-formaldehyde restriction Urea-formaldehyde presence is limited in the following components to 100 ppm: b. Laminating adhesives and resins.	OPTIMIZATION* The product is compliant	INGREDIENTS AND EMISSIONS Hardwood flooring - Expert engineered construction does not contain resins or adhesives Urea Formaldehyde
26	ENHANCED MATERIAL SAFETY Part 1: Precautionary material selection At least one of the following requirements is met: a. The project completes all Imperatives in the Materials Petal under the Living Building Challenge 3.0. b. Cradle to Cradle™ Material Health Certified c. No GreenScreen® Benchmark 1, List Translator 1 or List Translator Possible 1 substances over 1,000 ppm, as verified by a qualified Ph.D. toxicologist or Certified Industrial Hygienist. d. Meet some combination of the certifications described in Requirements b and c.	OPTIMIZATION* The product is not compliant	ATTRIBUTS INGREDIENTS AND EMISSIONS & ENVIRONMENTAL IMPACTS Hardwood flooring - Expert engineered construction does not contribute because it does not meet any of the criteria in the list
	MIND	P - PRECONDITION O - OPTIMIZATION	PRODUCT CONTRIBUTION
	MATERIAL TRANSPARENCY Part 1: Material information		INGREDIENTS AND EMISSIONS
97	Interior finishes and finish materials, furnishings (including workstations) and built-in furniture have some combination of the following material descriptions: b. Health Product Declaration®	OPTIMIZATION* The product is compliant	Lauzon has developed and published an Health Product Declaration® v2.1.1

*OPTIMIZATION NOT APPLICABLE TO THE CORE AND SHELL PROJECT v1 (February 2016)

It is important to consider that the criteria identified in the table reflects each category in which the product must conform to either a Precondition or an Optimization. The product itself does not meet the compliance to achieve as defined above, but is considered a beneficial element in all building components to meet WELL criteria.

Free translation by Vertima Well Building Standard guide.

