

DIGITALLY PRINTED ALUMINUM SIDING

ENVIRONMENTAL DATA SHEET



ALUMINUM SIDING

Our aluminum siding replicates exclusive authentic textures of various materials from a high definition digital ink-jet printing process.

Models:

- 3" V Groove Panel
- 4" V Groove Panel
- 4" Flat Panel
- 6" V Groove Panel
- 6" Channel Panel
- 6" Flat Panel
- 8" Flat Panel

VALIDATED ECO-DECLARATION

PRODUCT SPECIFICATIONS

(Quebec) G2C 1Y6 CANADA

Post-consumer: 9.9% - 10.0%

Sourcing of raw materials

for 13.0% of raw materials used in

Reference

3" † 8

8 †

4 .8

7 h

Composition

ATTRIBUTES

weight ratio.

Biobased materials

Recycled content Pre-consumer: 3.0%

ENVIRONMENTAL IMPACTS

Life Cycle Assessment

Product's carbon footprint

Environmental Product Declaration

INGREDIENTS AND EMISSIONS

Declaration of chemical ingredients

Type of declaration HPD version 2.0 Health Product Declaration

Emission test

VOCs 0 g/L - 29 g/L (Primer, inks and varnish factory applied)

Formaldehyde

Others

Product's contribution to LEED® v4

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TECHNICAL PERFORMANCES

Performance tests

Abrasion Resistance (ASTM D4060)

Wind Load Resistance (ISO 7895) (ASTM E330)

Impact Resistance (ISO 7895)

Fading (ASTM G155)

Graffiti Resistance (ASTM D6578)

Burning Characteristics

(ASTM E84 | CAN/ULC-S102 | CAN/ULC-

S114-05/NFPA 285)

Adhesion Testing (ASTM D3359)

Florida Building Code (FBC) Compliance

Expected life

MANUFACTURER'S ENVIRONMENTAL MANAGEMENT

Certification ISO 14001

Extended Producer Responsability (Take Back Program)

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

CERTIFICATIONS AND CONFORMITY REPORTS

FSC Certification®
Rapidly renewable materials -

The extraction location has been documented

manufacturing the final product, based on a

DiZal is a manufacturing company specialized in design, production and marketing of new high-end models of aluminum siding. Our technology replicates exclusive authentic textures of various materials from a high definition digital ink-jet printing process.

MasterFormat®: **07 46 13** Validated Eco-Declaration: **EDV16-0930-01**

Original issue date: 2016/09 Period of validity: 201 /09 to 201 /09



ALUMINUM SIDING





Models:

3" V Groove / 4" V Groove or Flat / 6" V Groove, Channel or Flat / 8" Flat

Dimensions:

Length: 16' (4.88 m)

Height: 3" (7.2cm), 4" (10.16 cm), 6" (15.24 cm), 8" (20.32 cm)

Characteristics:

High definition digital ink-jet printing

Protective coating against UV and discoloration Horizontal and vertical installation / Maintenance free Wide choice of colors and textures / Finishing accessories

ATTRIBUTES

RECYCLED CONTENT

Final products	Weight ratio	Pre-consumer	Post-consumer
Printed panels 3", 4", 6 " or 8"	100%	3.0%	9.9%
Printed accessories	100%	3.0%	9.9%
Unprinted accessories	100%	3.0%	10.0%

Component (with recycled content)	Weight ratio	Pre-consumer	Post-consumer	
Aluminum	99% - 100%	3.0%	10.0%	

Accessories of 12' (3.66 m) in length have been assessed. Printed accessories available with a matching finish are: Starter Strip, Base, Short Cap, Long Cap, Double Cap and Outside Corner Base. Unprinted accessories without a finish are: Double Base and Outside Corner Cap.

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%	Quebec, Quebec G2C 1Y6 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
Aluminum (recycled)	13.0%*	Toronto	Camion
Aluminum	86.0%	N/D	N/D
Primer	0.3%	N/D	N/D
Inks	0.3%	N/D	N/D
Varnish	0.3%	N/D	N/D

^{*}The extraction locations have been documented for 13.0% of materials of each components on the final product, based on their 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 on request.



ALUMINUM SIDING



ATTRIBUTES (CONTINUED)

SOURCING OF RAW MATERIALS (CONTINUED)



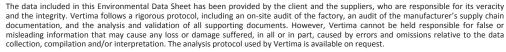
1. EXTRACTION LOCATIONS OF RECYCLED ALUMINUM

Pre-consumer recycled content:

Canada: Toronto (Ontario), Becancour and Jonquiere (Quebec)

Post-consumer recycled content:

Canada: Toronto (Ontario) (Within a 500 miles (800 km) radius from Toronto mill)





ALUMINUM SIDING



INGREDIENTS AND EMISSIONS

DECLARATION OF CHEMICAL INGREDIENTS



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

Period of validity: September 27, 2016 to September 27, 2019

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

Health Product Declaration® URL: Available shortly

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 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 Translat	or Benchmark 1 ³			
PBT (persitent, bioaccumulative and toxic)	Respiratory	☐ Land toxicity		
Cancer	☐ Neurotoxicity	Physical hazard		
Gene Mutation	Mammal	☐ Global warning		
Development	Skin	Ozone depletion		
Reproductive	E ye	Multiple		
Endocrine	Aquatic toxicity	Unknown		

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	# CAS¹	Weight ratio	GreenScreen ^{®,2}	Note (s) (for more details refer to the HPD ^{®)}
Aluminum	Main component (substrate)	7439-92-1 7440-43-9	99.0%	LT-1	UNK benchmark also present
Primer	Finishing: preparation layer	108-88-3 13463-67-7 1330-20-7 7631-86-9	0.33%	BM-1	LT-1, LT-P1, BM-2 and LT-UNK benchmarks also present
Inks	Finishing: decorative layer	Undisclosed (3) 142-16-5	0.33%	LT-P1	LT-UNK and UNK benchmarks also present
Varnish	Finishing: protection layer	13048-33-4	0.33%	LT-P1	LT-UNK benchmarks also present

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

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

²GreenScreen Method: http://www.greenscreenchemicals.org/

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 hazard as LT-1 or LT-P1 (does not mean the chemical is safe).

ALUMINUM SIDING



INGREDIENTS AND EMISSIONS (CONTINUED)

VOLATILE ORGANIC COMPOUNDS (VOCs)

All adhesives and finishes are applied during the manufacturing of Dizal's Aluminum siding. In each category of products presented below, the values refer to the VOC content of adhesives and finishes in their liquid state.

FINISH				
Manufacturer	Туре	VOC content g/L		
Supplier 1	Primer	29 g/L		
Supplier 2	Inks	0 g/L		
Supplier 3	Vernis UV	16.7 g/L		

Validated Eco-Declaration—Emissions and VOCs

Methodology: validation of the documents attesting the methodology and results of emissions general evaluation and VOCs.

Vertima's procedure: VERT-032009-02, Second Edition.

TECHNICAL PERFORMANCES

PERFORMANCE TESTS

Non-exhaustive list

- Abrasion Resistance (ASTM D4060);
- Wind Load Resistance (ISO 7895);
- Impact Resistance (ISO 7895);
- Fading (ASTM G155);
- Graffiti Resistance (ASTM D6578);
- Burning Characteristics (ASTM E84 CAN/ULC-S102 | CAN/ULC-S114-05/NFPA 285);
- Adhesion Testing (ASTM D339);
- Florida Building Code (FBC) Compliance.

EXPECTED LIFE



WARRANTY

DiZal manufactures siding products and accessories designed with high quality materials and certifies efficiency and exceptional durability of its products.

Our Limited Lifetime Warranty covers defects in materials or manufacturing that may cause warping, rust and corrosion, checking, cracking and excessive discoloration if and only if our products are installed according to the instructions and recommendations of the company.*

* Refer to our complete warranty terms and conditions.

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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		ATTRIBUTES
MR	 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 100 miles (160 km) around the project site. 	1 point	Recycled content Pre-consumer (3.0%) Post-consumer (9.9% - 10.0%)
			INGREDIENTS AND EMISSIONS
MR	MR — Material Ingredients Option 1: Material ingredients reporting	1 point	HPD® version 2.0 Health Product Declaration [®]
INDOOR E	INDOOR ENVIRONMENTAL QUALITY		PRODUCT CONTRIBUTION
			INGREDIENTS AND EMISSIONS
EQ	Low-Emitting Materials Option 1: Product category calculation	Do not contribute ¹	¹ The product has not been tested in a laboratory in accordance with the California Department of Public Health (CDPH) Standard Method v1.1–2010

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.

Lowing and Material III Harrise.				
MATERIAL	S AND RESOURCES	POINTS	PRODUCT CONTRIBUTION	
	Environmentally Preferable Products	0.5	ATTRIBUTES	
MR Credit 2	MR Option 2: Environmentally Preferable Products redit 2 ² At least 90% of all materials in each category must meet credit requirements. DiZal's Aluminum siding contributes to 0.5 point for Recycled Content.		Recycled content Pre-consumer (3.0%) Post-consumer (9.9% - 10.0%)	
INDOOR ENVIRONMENTAL QUALITY		POINTS	PRODUCT CONTRIBUTION	
		Do not contribute ³	INGREDIENTS AND EMISSIONS	
EQ Credit 7			³ The product has not been tested in a laboratory in accordance with the California Department of Public Health (CDPH) Standard Method v1.1–2010	

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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Validated Eco-Declaration: EDV16-0930-01 Period of validity: 2018/09 to 2019/09

