



**3/4" PLYWOOD-REINFORCED INSULATED
STEEL DOOR**


Over the years, Métalec Steel Doors and Frames has forged a solid reputation in the field of steel door manufacturing for commercial, industrial and institutional projects.

These doors are designed to withstand high-frequency use. They are primarily used in locations such as schools and recreational buildings.

Model: PS Series

VALIDATED ECO-DECLARATION

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PRODUCT SPECIFICATIONS	ENVIRONMENTAL IMPACTS	TECHNICAL PERFORMANCES
<p>Reference 3/4" Plywood-Reinforced Insulated Steel Door, 18 GA satin finish 36" x 84" x 1 3/4"</p> <p>Final manufacturing locations 2150 Leon Harmel Street, Quebec, Quebec G1N 4L2 CANADA 7800 Bombardier Street, Anjou, Quebec H1J 2G3 CANADA</p> <p>Composition Carbon steel 18 GA, 3/4"plywood, polyisocyanurate panel, hinge reinforcements, adhesive, lock reinforcements, paint (for touch- ups).</p>	<p>Life Cycle Assessment -</p> <p>Product's carbon footprint -</p> <p>Environmental Product Declaration ISO 14025:2006 -</p>	<p>Performance tests Compliance with steel standards ASTM A 653 / A 653M Certified according to standards NFPA80, CSDMA, NAAMM, HMMA</p>
ATTRIBUTES	INGREDIENTS AND EMISSIONS	MANUFACTURER'S ENVIRONMENTAL MANAGEMENT
<p>Recycled content Pre-consumer: 17.3% Post-consumer: 26.6%</p> <p>Sourcing of raw materials The sourcing of raw materials is documented to 43.9% based on the weight of the final assembled product.</p> <p>FSC® -</p> <p>Rapidly renewable materials -</p> <p>Biobased materials -</p>	<p>Declaration of chemical ingredients 1,000 ppm</p> <p>Type of declaration HPD® version 2.1 Health Product Declaration®</p> <p>Emission test CDPH Test compliance</p> <p>VOC Paint (for touch-ups) 83 g/L Adhesive 127 g/L (All products are applied at the plant)</p> <p>Formaldehyde -</p> <p>Other -</p>	<p>ISO 14001 certification -</p> <p>Extended Producer Responsibility - (Take Back Program)</p> <p>Corporate Sustainability Report - (CSR: GRI, ISO 26000, BNQ 21000 or other)</p>
		CERTIFICATIONS AND CONFORMITY REPORTS
		

Métalec manufactures steel doors and frames for commercial, industrial and institutional projects. Models offered include fire-rated steel doors, security doors, soundproof doors, stainless steel doors, insulated doors and steel frames.

Quebec Division: 2150 Leon Harmel Street, Quebec, Quebec G1N 4L2 CANADA
Montreal Division: 7800 Bombardier Street, Anjou, Quebec H1J 2G3 CANADA
www.metaltec.com

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Validated Eco-Declaration:
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Original issue date: **02/2019**
Period of validity: **02/2019 to 11/2019**



ENVIRONMENTAL DATA SHEET

3/4" PLYWOOD-REINFORCED INSULATED STEEL DOOR



Dimensions

- Width: 36"
- Height: 84"
- Thickness: 1³/₄"
- Other dimensions available upon request.

Characteristics (PS SERIES)

- Satin finish galvanized steel 18 GA (also available in GA 16).
- The doors are perfectly smooth without visible joints.
- The door panels are vertically assembled together by a mechanical lock seam with flush welding near the hardware perforations.
- The door edges have a bevel measuring 1/8" x 2".
- 16-gauge steel end channels are welded by electric resistance at the top and the bottom of the door every 6" center to center.
- The insulated doors have a polyisocyanurate insulating sheet core with a thermal resistance of RSI 0.92 (R-5.25) and a density of 3.4lb per cubic inch and a 3/4" plywood panel with a thermal resistance of RSI 0.17 (R-0.98) laminated to the door faces by a polyurethane-based adhesive; the total thermal resistance of the door's core is RSI-1.5 (R-8.5).
- The doors are mortised for three standard hinges measuring 4¹/₂" x 4".
- The hinge reinforcements are made with 10-gauge steel and the top hinge is reinforced with an additional angular bend.
- A U-shaped door closer reinforcement made of 16-gauge steel channel is installed at the top of all of the steel doors.

ATTRIBUTES

RECYCLED CONTENT

Final product	Weight ratio	Pre-consumer	Post-consumer
3/4" Plywood-Reinforced Insulated Steel Door	100%	17.3%	26.6%
Components (with recycled content)	Weight ratio	Pre-consumer	Post-consumer
Carbon steel 18 GA	62.2%	27.0%	42.0%
Polyisocyanurate panel	2.3%	8.0%	0%
Hinge reinforcements	1.0%	27.0%	42.0%
Lock reinforcements	0.1%	27.0%	42.0%

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 assembly.

Vertima protocol: VERT-032008-01, Second Edition.

SOURCING OF RAW MATERIALS

Weight ratio	Final manufacturing locations
100%	Quebec, Quebec G1N 4L2 and Anjou, Quebec H1J 2G3

Validated Eco-Declaration – Sourcing of raw materials

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

Vertima protocol: VERT-032008-02, Second Edition.

Components	Weight ratio	Extraction locations	Transportation
Carbon steel 18 GA	62.2%	Hamilton, Ontario	Truck
3/4" Plywood	33.9%	N/A	N/A
Polyisocyanurate panel	2.3%	N/A	N/A
Hinge reinforcements	1.0%	Hamilton, Ontario	Truck
Adhesive	0.5%	N/A	N/A
Lock reinforcements	0.1%	Hamilton, Ontario	Truck
Paint (for touch-ups)	Negligible	N/A	N/A

The sourcing of raw materials is documented to 43.9% based on the weight of the final assembled product.

The data included in this Environmental Data Sheet has been provided by the client and the suppliers, who are responsible for its veracity and its 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 data collection, compilation and/or interpretation. The analysis protocol used by Vertima is available on request.

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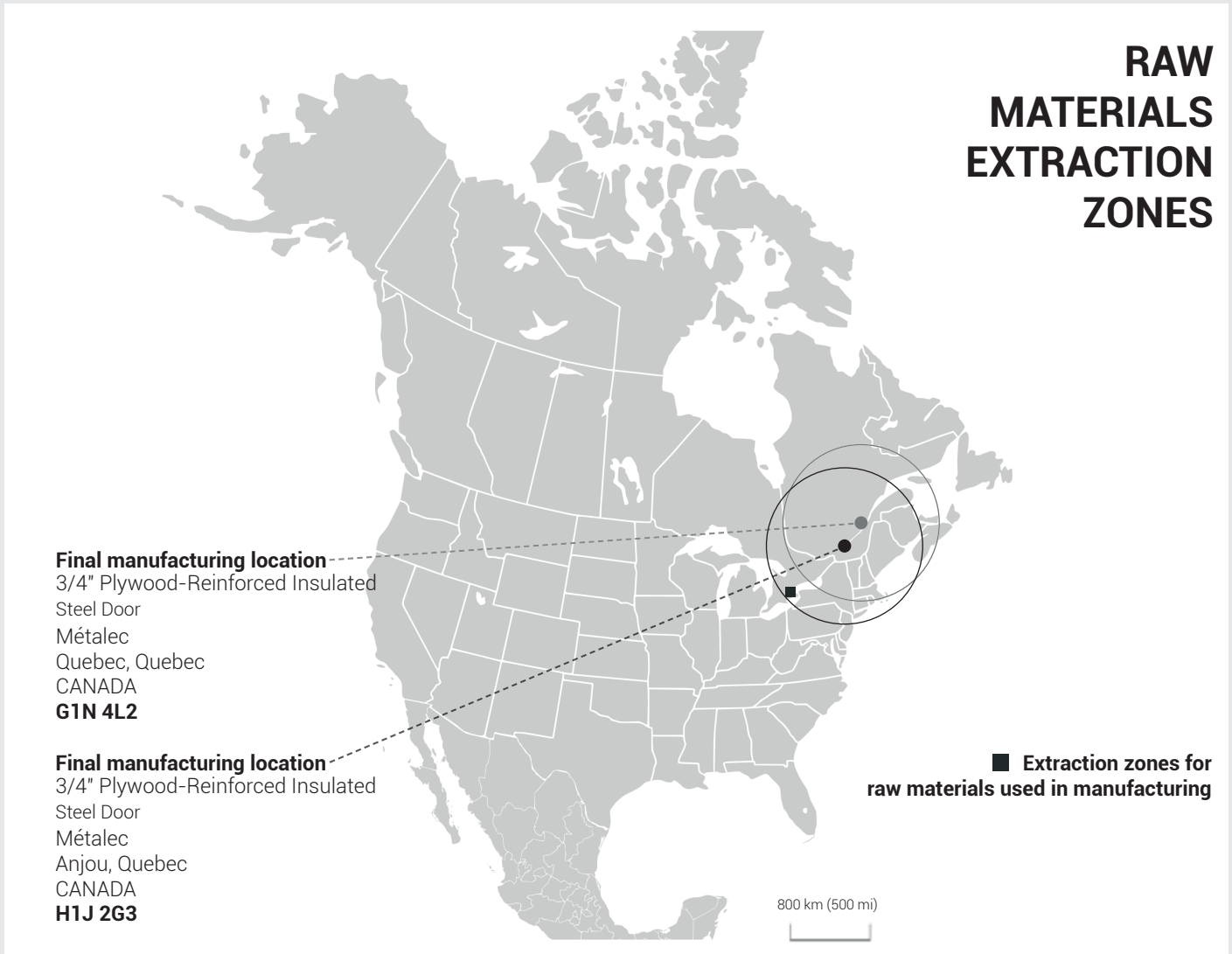
ENVIRONMENTAL DATA SHEET

3/4" PLYWOOD-REINFORCED INSULATED STEEL DOOR

ATTRIBUTES (CONTINUED)

SOURCING OF RAW MATERIALS (CONTINUED)

RAW MATERIALS EXTRACTION ZONES



EXTRACTION LOCATION OF RECYCLED STEEL (Carbon steel 18 GA, hinge reinforcements, lock reinforcements)

Canada: Hamilton, Ontario

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ENVIRONMENTAL DATA SHEET

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INGREDIENTS AND EMISSIONS

DECLARATION OF CHEMICAL INGREDIENTS



Type of declaration: Health Product Declaration® (HPD®) version 2.1

Period of validity: November 30, 2017 to November 30, 2020

HPD name: Plywood-Reinforced Insulated Steel Door
Summary of product contents and results from chemical substances screening against HPD Priority Lists¹ and the *GreenScreen for Safer Chemicals*®².

HPDC repository URL: <http://www.hpd-collaborative.org/hpd-public-repository/>

The results presented below are specific to the R-12.9 and R-8.75 Insulated Steel Doors. For the Steel Door with Honeycomb Core and the Steel Door with Temperature Rise Core, please consult the HPDC repository.

The Health Product Declaration® and its logo are used with permission from the Health Product Declaration® Collaborative.

Declaration: ■ Prepared by Vertima Inc., HPDC-approved third party

Content inventory threshold: 1,000 ppm

Full disclosure of intentional ingredients: Yes

Full disclosure of known hazards: Yes

Hazard(s) associated with product ingredients

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

GreenScreen® score of highest concern: List Translator Likely Benchmark 1³

- | | | |
|--|--|---|
| <input checked="" 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 checked="" type="checkbox"/> Gene mutation | <input checked="" type="checkbox"/> Mammals | <input type="checkbox"/> Ozone depletion |
| <input checked="" type="checkbox"/> Development | <input type="checkbox"/> Land toxicity | <input checked="" type="checkbox"/> Multiple |
| <input checked="" type="checkbox"/> Reproductive | <input checked="" type="checkbox"/> Aquatic toxicity | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Endocrine | <input checked="" type="checkbox"/> Skin or eye | |

¹Please refer to Annex D of HPD®Open Standard version 2.1, May 2017: <http://www.hpd-collaborative.org>

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

³GreenScreen (GS) scores for 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 information, please refer to the HPD®)
Carbon steel 18 GA (Galvannealed Steel #1)	Main component	62.2%	7440-02-0, 7439-92-1 7440-43-9	LT-1	LT-P1 score also present
3/4" Plywood	Insulation	33.9%	50-00-0	LT-1	LT-P1 score also present
Polyisocyanurate panel (Polyurethane-Based)	Insulation	2.3%	109-66-0, 78-78-4	LT-P1	LT-UNK score also present
Hinge Reinforcements, Lock Reinforcements	Hardware reinforcement	1.1%	7440-02-0, 7439-92-1 7440-43-9	LT-1	LT-P1 score also present
Adhesive (Adhesive #1)	Assembly	0.5%	Undisclosed (2)	LT-UNK	-
Paint	Finish	0%	13463-67-7	LT-1	LT-UNK score 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 for chemical ingredients: LT-1, equivalent to GS Benchmark 1; LT-P1, possible equivalent of GS Benchmark 1; LT-U or LT-UNK, present on official 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 protocol: VERT-032009-01, Second Edition.

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INGREDIENTS AND EMISSIONS (CONTINUED)

EMISSIONS TEST

Analysis method



California Department of Public Health CDPH/EHLB/Standard Method Version 1.2, 2017
(Emissions testing method for California Specification 01350)

Product name: Steel Door Polyurethane Insulated Core - PS-18-IS "(3/4" plywood-reinforced insulated steel door)"

Certificate number: 0180315-05

Issue date: February 19, 2018

Analysis laboratory: Berkeley Analytical

The acceptable criteria and results demonstrate compliance with the standard for the product analyzed:

Exposure scenario ¹	Individual VOC of concern ²		Formaldehyde ³		TVOC ⁴
	Criteria	Compliant	Criteria	Compliant	Results
Classroom	≤½ Chronic REL	Yes	≤9.0 µg/m ³	Yes	≤0.5 mg/m ³
Private office	≤½ Chronic REL	Yes	≤9.0 µg/m ³	Yes	≤0.5 mg/m ³

Product covering⁵: Does not apply

Source: Berkeley Analytical – VOC Emission Testing Certificate

¹The exposure scenarios and product quantities for classrooms and offices are as defined in Tables 4-2 – 4-5 (CDPH Std. Mtd. V1.2-2017).

²The individual VOC limits are as defined in Table 4-1 (ibid).

³The maximum concentration for formaldehyde is ≤9 µg/m³, issued January 1, 2012; the previous limit was ≤16.5 µg/m³ (ibid).

⁴For informational purposes only: three different ranges of TVOC results predicted, i.e., ≤0.5 mg/m³, >0.5 – 4.9 mg/m³ and ≥5.0 mg/m³.

⁵For informational purposes only and applicable only to tests on products applied in liquid form; number of grams of sample applied per square meter of substrate.

Validated Eco-Declaration – Emissions Tests

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

Vertima protocol: VERT-032008–02, Second Edition.

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INGREDIENTS AND EMISSIONS

VOLATILE ORGANIC COMPOUNDS (VOCs)

Paint (for touch-ups) is applied during the manufacturing of the 3/4" Plywood-Reinforced Insulated Steel Door. For the product category presented below, the value refers to the VOC content of the paint in its liquid state.

FINISHES

Manufacturer	Product	VOC content
MICCA	Paint (for touch-ups)	83 g/L

Adhesive is applied during the manufacturing of the 3/4" Plywood-Reinforced Insulated Steel Door. For the product category presented below, the value refers to the VOC content of the adhesive in its liquid state.

ADHESIVE

Manufacturer	Product	VOC content
Adchem / Adfast	Adhesive	127 g/L

Validated Eco-Declaration – Volatile organic compound (VOC) emissions
Methodology: validation of documents attesting VOC emissions.
Vertima validation protocol: VERT-032009-02, Second Edition.

TECHNICAL PERFORMANCES

PERFORMANCE TESTS

Non-exhaustive list. Please consult the technical documentation for the 3/4" Plywood-Reinforced Insulated Steel Door for more information.

Compliance with steel standards: ASTM A 653 / A 653M

Certified according to standards: NFPA80, CSDMA, NAAMM, HMMA.

WARRANTY

Métalec Steel Doors and Frames guarantees its products for a five-year period, starting from the delivery date, against all manufacturing defects (if products are properly installed).

Métalec Steel Doors and Frames will repair or replace all products that are deemed to be defective, following an inspection by one of its representatives, if the representative has determined that there is a manufacturing defect.

Métalec is solely responsible for the product delivered to its client's warehouse. This warranty does not include: installation, paint application and other fees that the client or user may have incurred. Note that the deflection of a steel door caused by exposure to sunlight is not considered a manufacturing defect but rather as a natural and uncontrollable physical reaction; in this case, the warranty does not apply. Certain restrictions apply.

Source: www.metalec.com

MANUFACTURER'S ENVIRONMENTAL MANAGEMENT

ENVIRONMENTAL COMMITMENT

Métalec Steel Doors and Frames aims to make a positive contribution to the world and reduce its environmental footprint in all of the actions it undertakes. The company is committed to showing leadership, rigor and determination in its pursuit of environmentally conscious actions to advance sustainable development among its clients and the public.

Métalec's environmental commitment goes beyond the manufacturing of products that are respectful of the environment and in conformity with LEED requirements. We also aim to integrate sustainable practices in our factories and processes.

Source: www.metalec.com

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SUMMARY OF PRODUCT CONTRIBUTIONS

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

New Constructions, Core and Shell, Schools, Retail, Data Centers, Warehouses and Distribution Centers, Hospitality and Health Care Establishments.

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

Commercial Interiors, Retail and Hospitality.

MATERIALS AND RESOURCES		PRODUCT CONTRIBUTIONS	
MR	Building Product Disclosure and Optimization – Sourcing of Raw Materials Option 2: Best extraction practices (1 point) The 3/4" Plywood-Reinforced Insulated Steel Door may also contribute to the location valuation factor if the product is sourced (extracted, manufactured, purchased) within a 160-km radius of the project site.	Contribute	ATTRIBUTES Recycled content Pre-consumer (17.3%) Post-consumer (26.6%)
			INGREDIENTS AND EMISSIONS HPD® version 2.1 Health Product Declaration®
MR	Building Product Disclosure and Optimization – Material Ingredients Option 1: Materials Ingredients Reporting (1 point) The 3/4" Plywood-Reinforced Insulated Steel Door contributes with its Health Product Declaration® and is valued as 1 whole product out of the 20 needed for credit achievement calculation purposes.	Contribute	ATTRIBUTES Recycled content Pre-consumer (17.3%) Post-consumer (26.6%)
			INGREDIENTS AND EMISSIONS HPD® version 2.1 Health Product Declaration®
INTERIOR ENVIRONMENTAL QUALITY		PRODUCT CONTRIBUTIONS	
IEQ	Low-Emitting Products Option 1: Product category calculation (1-3 points) The number of points depends on the LEED® rating system chosen and the number of compliance categories.	Contribute ¹	INGREDIENTS AND EMISSIONS ¹ The 3/4" Plywood-Reinforced Insulated Steel Door complies with California Department of Public Health (CDPH) Standard Method v1.2-2017.

Note that the total number of possible points indicates the number of achievable points in each credit category where the specific product may contribute. The product itself cannot achieve this score, as defined above, but is considered as a beneficial element in all building components used in order to achieve LEED® credits.

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