

Strength of expertise



VALIDATED ECO-DECLARATION

PRODUCT SPECIFICATIONS

References

Knockdown steel frame 16 GA satin finish 36" x 84" x $5^{\rm 3/4"}$

Welded steel frame 16 GA satin finish 36" x 84"x $5^{\scriptscriptstyle 3/4"}$

Final manufacturing locations

2150 Leon Harmel Street, Quebec, Quebec G1N 4L2 CANADA 7800 Bombardier Street, Anjou, Quebec H1J 2G3 CANADA

Composition

Carbon steel 16 GA, welding, fasteners, hinge reinforcements, strike reinforcement, paint (for touch-ups).

ATTRIBUTES

Recycled content Pre-consumer: 25.8% - 26.9% Post-consumer: 40.2% - 41.8%

Sourcing of raw materials The sourcing of raw materials is documented

between 66.0% and 68.7% based on the weight of the final manufactured product.

FSC® Rapidly renewable materials Biobased materials

ENVIRONMENTAL IMPACTS

Life Cycle Assessment

Product's carbon footprint

Environmental Product Declaration ISO 14025:2006

INGREDIENTS AND EMISSIONS

| Declaration of | 1 000 ppm |
|---------------------|-----------|
| nemical ingredients | 1,000 ppm |

Type of declarationHPD® version 2.1Health Product Declaration®

Emission test

| VOC Paint (for touch-ups) (Paint is applied at the plant) | 83 g/L |
|--|--------|
| | |

Formaldehyde

Other

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.

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

STEEL FRAME

Attentive to detail, Métalec Steel Doors and Frames designs its steel frames in accordance with the quality standards for manufacturing and finishing required by industry professionals. By design, frames can be made in different ways, ranging from knockdown frames to welded, thermal break and architectural.

Whether standard or customized, Métalec Steel Doors and Frames can provide you with frames adapted to any project.

Models:

- Knockdown Steel Frame
- Welded Steel Frame
- Other models available:
 - Thermal Break Frame
 - Architectural Frame

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TECHNICAL PERFORMANCES

Performance tests

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

Fire resistance testing: CAN/ULC-S104-M80, UBC7-2 (1994), UL10 (b), NFPA252, NFPA80, CSDMA, NAAMM, HMMA, ASTM E 152.

MANUFACTURER'S ENVIRONMENTAL MANAGEMENT

ISO 14001 Certification

Extended Producer Responsibility (Take Back Program)

Corporate Sustainability Report

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

CERTIFICATIONS AND CONFORMITIES REPORTS

MasterFormat®: **08 11 00** Validated Eco-Declaration: **EDV17-1081-01** Original issue date: **11/2017** Period of validity: **11/2019** to **11/2020**





STEEL FRAME



Dimensions

- Width: 12" to 120"
- Height: 80" to 120"
- Other dimensions available upon request.

Characteristics

- Galvanized steel satin finish 16 GA. Also available in 14 GA and 18 GA;
- Three standard hinges measuring 4^{1/2}" x 4";
- ASA strike measuring 1^{1/4}" x 4^{7/8}" or T-strike measuring 1^{1/8}" x 2^{3/4}";
- The basic frames have three rubber shock absorbers on the left doorjamb and the double frames are equipped with two rubber shock absorbers at the top
- 180-minute fire rating certification (also available for 20, 45 and 90 minutes).

ATTRIBUTES

RECYCLED CONTENT

| Final product | Weight ratio | Pre-consumer | Post-consumer | |
|------------------------------------|--------------|--------------|---------------|--|
| Knockdown Steel Frame | 100% | 26.9% | 41.8% | |
| Components (with recycled content) | Weight ratio | Pre-consumer | Post-consumer | |
| Carbon steel 16 GA | 93.2% 27.0% | | 42.0% | |
| Fasteners | 3.4% | 27.0% | 42.0% | |
| Hinge reinforcements | 2.9% | 27.0% | 42.0% | |
| Final product | Weight ratio | Pre-consumer | Post-consumer | |
| Welded Steel Frame | 100% | 25.8% | 40.2% | |
| Components (with recycled content) | Weight ratio | Pre-consumer | Post-consumer | |
| Carbon steel 16 GA | 92.3% | 27.0% | 42.0% | |
| Hinge reinforcements | 2.9% | 27.0% | 42.0% | |
| Fasteners | 0.5% | 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 16 GA | 92.3% - 93.2% | Hamilton, Ontario | Truck |
| Welding* | 3.8% | N/A | N/A |
| Fasteners | 0.5% - 3.4% | Hamilton, Ontario | Truck |
| Hinge reinforcements | 2.9% | Hamilton, Ontario | Truck |
| Strike reinforcement | 0.5% | N/A | N/A |
| Paint (for touch-ups) | Negligible | N/A | N/A |

*Welding is used only in the welded steel frame.

The sourcing of raw materials is documented between 66.0% and 68.7% based on the weight of the final manufactured 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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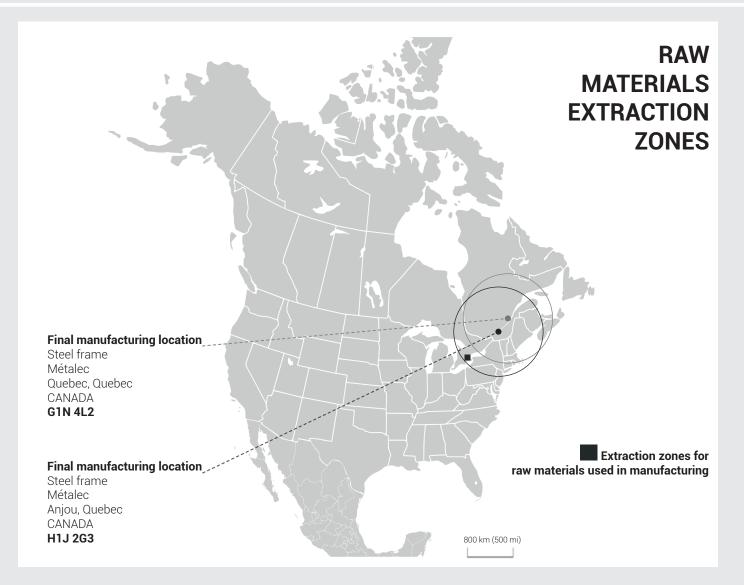


STEEL FRAME

ATTRIBUTES (CONTINUED)

SOURCING OF RAW MATERIALS (CONTINUED)





EXTRACTION LOCATION OF RECYCLED STEEL (Carbon steel 16 GA, fasteners, hinge reinforcements)

Canada: Hamilton, Ontario

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Validated Eco-Declaration: EDV17-1081-01 Period of validity: 11/2019 to 11/2020



STEEL FRAME

ΓΔΙΕ

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: Knockdown Steel Frame 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 Knockdown Steel Frame. For the Welded Steel Frame, please consult the HPDC repository.

Mammals

Land toxicity

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.

Physical hazard

Global warming

Ozone depletion

Multiple

Unknown

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



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 16 GA (Galvannealed Steel #1) | Main component | 93.2% | 7440-02-0, 7439-92-1 7440-43-9 | LT-1 | LT-P1 score also present |
| Hinge Reinforcements, Lock Reinforcements Galvanized Steel | Hardware reinforcement | 6.3% | 7440-02-0, 7439-92-1 7440-43-9 | LT-1 | LT-P1 score also present |
| Strike reinforcement (Galvannealed Steel #2) | Hardware reinforcement | 0.5% | 7440-66-6 7439-89-6 | LT-P1 | - |
| 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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STEEL FRAME

INGREDIENTS AND EMISSIONS (CONTINUED)

VOLATILE ORGANIC COMPOUNDS (VOCs)

Paint (for touch-ups) is applied during manufacturing of the steel frame. 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 |

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 steel frame technical documentation for more information.

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

Fire resistance testing: CAN/ULC-S104-M80, UBC7-2 (1994), UL10 (b), NFPA252, NFPA80, CSDMA, NAAMM, HMMA, ASTM E152.

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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STEEL FRAME



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.

| MATER | MATERIALS AND RESOURCES PRODUCT CONTRIBUTIONS | | | | |
|---------|---|--|--|--|--|
| | | | ATTRIBUTES | | |
| MR | Building Product Disclosure and Optimization Sourcing of Raw Materials Option 2: Best extraction practices (1 point) The steel frame 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 | Recycled content - Variable depending on product Knockdown Steel Frame: Pre-consumer (26.9%) Post-consumer (41.8%) Welded Steel Frame: Pre-consumer (25.8%) Post-consumer (40.2%) | | |
| MR | Building Product Disclosure and Optimization — Material Ingredients Option 1: Materials Ingredients Reporting (1 point) The steel frame contributes with its <i>Health Product Declaration®</i> and is valued as 1 whole product out of the 20 needed for credit achievement calculation purposes. | Contribute | INGREDIENTS AND EMISSIONS | | |
| | | | HPD® version 2.1 Health Product Declaration® | | |
| INTERIO | - DR 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. | | INGREDIENTS AND EMISSIONS | | |
| | | Do not contribute ¹ | ¹ Must be tested and determined compliant with the 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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