



**BOULEVARD PAVERS
(WITH AND WITHOUT GLASS POWDER)**

Boulevard pavers has been used in Canada for decades and are essential materials for the construction or rehabilitation of streets, boulevards, sidewalks and parks. Permacon has a complete range of high-performance urban pavers.

Boulevard pavers is very resistant, durable and available in several formats. This is now available with glass powder as supplementary cementing materials, which makes them an asset for sustainable development.

VALIDATED ECO-DECLARATION

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PRODUCT SPECIFICATIONS	ENVIRONMENTAL IMPACTS	TECHNICAL PERFORMANCE
<p>References Boulevard Pavers Boulevard Pavers, with glass powder</p>	<p>Life Cycle Assessment October 2016</p>	<p>Performance tests ASTM E903 (Solar reflectance), CSA A231.2</p>
<p>Final manufacturing location Saint-Eustache, QC J7R 7E6 CANADA</p>	<p>Product's carbon footprint October 2016</p>	<p>Expected life -</p>
<p>Composition See list (page 5)</p>	<p>Environmental Product Declaration Specific ISO 14025:2006 November 2016- November 2021</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: 0% Post-consumer: Up to 2.0% (Only in the Boulevard pavers, with glass powder)</p>	<p>Declaration of chemical ingredients 1,000 ppm</p>	<p>Extended Producer Responsibility (Take Back Program) -</p>
<p>Sourcing of raw materials The extraction locations for raw materials have been documented from 73.1% to 99.0% of the final product components, based on weight ratio.</p>	<p>Type of declaration HPD® version 2.1.1 <i>In progress</i></p>	<p>Corporate Sustainability Report (CSR: GRI, ISO 26000, BNQ 21000 or others) -</p>
<p>FSC® Certification -</p>	<p>Emission test -</p>	<p>CERTIFICATIONS AND CONFORMITIES</p>
<p>Rapidly renewable materials -</p>	<p>VOCs -</p>	
<p>Biobased materials -</p>	<p>Formaldehyde -</p>	
	<p>Other -</p>	

As a leader in concrete products in Canada, Permacon supports you in all your new construction or renovation projects. Permacon's pavers, sleeper walls, patio block, exterior steps, concrete curbs, stones and bricks are the solution to all your landscaping design ideas and exterior masonry projects.

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ENVIRONMENTAL DATA SHEET

BOULEVARD PAVERS (WITH AND WITHOUT GLASS POWDER)



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.

SUSTAINABLE SITES		PRODUCT CONTRIBUTIONS	
SS Credit 1	Heat Island Reduction Option 1: Nonroof and roof (1-2 points) Use paving materials with a three-year aged solar reflectance (SR) value of at least 0.28. If three-year aged value information is not available, use materials with an initial SR of at least 0.33 at installation.	Contribute	TECHNICAL PERFORMANCE
			Boulevard pavers, with and without glass powder, Stanstead gray, light gray, beige and beige gray meet this credit.
MATERIALS AND RESOURCES		PRODUCT CONTRIBUTIONS	
MR	Building Product Disclosure and Optimization – Environmental Product Declarations (EPD) Option 1: Environmental Product Declaration (1 point) Boulevard pavers, with glass powder (colors: ash gray, charcoal, light charcoal, brown, red, beige gray, sheffield beige, beige, cambrian black, cambrian brown, pale gray and stanstead gray) contributes to this credit due to the availability of a product-specific EPD (Type III) and is valued as 1 whole product out of the 20 needed for the purposes of credit achievement calculation.	Contribute	ENVIRONMENTAL IMPACTS
			Product-specific EPD (Type III) compliant to ISO 14025:2006.
MR	Building Product Disclosure and Optimization – Sourcing of Raw Materials 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 ¹	ATTRIBUTES
			Recycled Content Post-consumer (Up to 2.0%) ¹ Only for Boulevard pavers, with glass powder (see page 2)
MR	Building Product Disclosure and Optimization – Material Ingredients Option 1: Material ingredients reporting (1 point) Boulevard pavers, with and without glass powder contributes to this credit due to the availability of Health Product Declarations® and is valued as 1 whole product out of the 20 needed for the purposes of credit achievement calculation.	Contribute	INGREDIENTS AND EMISSIONS
			HPD® version 2.1.1 Health Product Declaration® <i>In progress</i>

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 obtain LEED® credits.

The data included in this Environmental Data Sheet has been provided by the client and 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, caused in all or in part, by errors or omissions relative to the collection, compilation and/or interpretation of data.
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ENVIRONMENTAL DATA SHEET

BOULEVARD PAVERS (WITH AND WITHOUT GLASS POWDER)

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.

SUSTAINABLE SITES		PRODUCT CONTRIBUTIONS	
SS Credit 1	Heat Island Reduction Option 2: Nonabsorptive materials (1-2 points) Install light-colored materials with high RS. ² If the percentage area of non-absorptive materials ranges between 50% and 75%, a value of 1 point is assigned. If it represents more than 75%, a value of 2 points is awarded.	Contribute²	TECHNICAL PERFORMANCE
			Boulevard pavers, with and without glass powder, Stanstead gray, light gray, beige and beige gray meet this credit.
MATERIALS AND RESOURCES		PRODUCT CONTRIBUTIONS	
MR Credit 2	Environmentally Preferable Products Maximum of 4 points depending on both options in the context of each project. Option 1: Local Production ³ Framing, concrete (cement and aggregates) and drywall may contribute to the location valuation factor if the product is sourced (extracted, manufactured, purchased) within 160 km of the project site. AND/OR Option 2: Environmentally Preferable Products Boulevard pavers, with and without glass powder does not meet the criteria of this option. Concrete must be composed of at least 30% of fly ash or slag as a substitute for cement and 50% recycled or recovered aggregate. Otherwise the concrete must be composed of 90% of recycled content or recovered aggregate.	Contribute³	ATTRIBUTES
			Recycled Content Post-consumer (Up to 2.0%) Only for Boulevard pavers, with glass powder (see page 2)

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 obtain LEED® credits.

