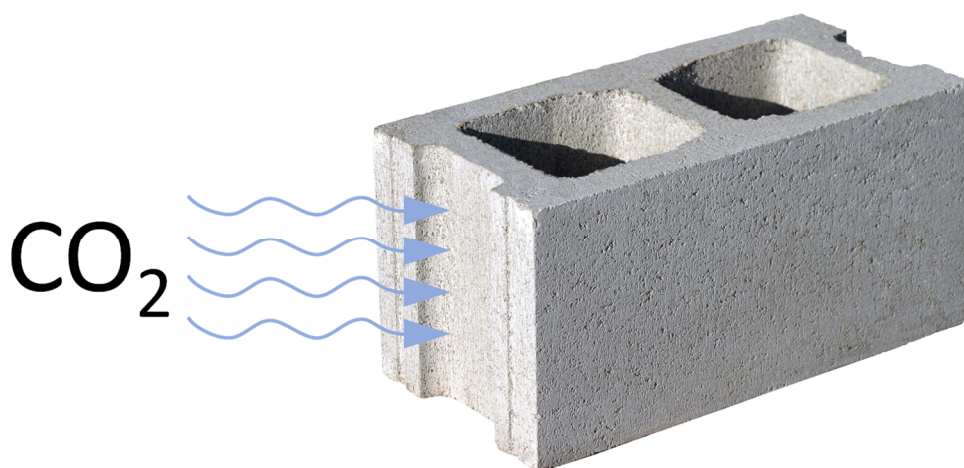




CARBOCLAVE CONCRETE MASONRY UNITS ARE THE NEXT GENERATION BLOCK THAT REDUCE EMISSIONS WHILE UTILIZING CARBON DIOXIDE AS A CURING AGENT

Manufactured using a patent-pending, industry-leading process that converts gaseous CO₂ waste into solid reinforcing calcium carbonate

- ✓ Production consumes less energy than conventional steam curing
- ✓ Guaranteed minimum CO₂ utilization of 0.23 kg per 20 cm unit



Improved performance relative to conventional block, including

- | | |
|--|--|
| ✓ Higher compressive strength (limestone/granite family) | ✓ Greater resistance to drying and atmospheric shrinkage |
| ✓ Better freeze-thaw resistance | ✓ Reduced sorptivity/permeability |
| ✓ Improved sulphate attack resistance | ✓ Reduced efflorescence effect |
| ✓ Consistent colour in production | |

**FOR MORE INFORMATION VISIT:
WWW.RICHVALEYORK.COM OR CALL: 1-877-792-5625**

RICHVALE YORK BLOCK INC.

5 CARDICO DRIVE GORMLEY, ON L0H 1G0 Toll Free: 1-877-792-5625 Local: 416-213-7444 Fax: 416-213-7441

| LEED® Credit | Credit Points | Carboclave Block Contribution |
|---|--|--|
| EAp2: Minimum Energy Performance (option 1) & EAc1: Optimize Energy (option 1) | BD + C ² : up to 19 ID + C ³ : n/a | <ul style="list-style-type: none"> Thermal mass from exposed exterior and interior masonry walls absorbs and releases heat slowly, which moderates temperatures to reduce heating and cooling loads, energy consumption, and equipment size |
| MRc2: Construction Waste Management | BD + C: up to 2 ID + C: up to 2 | <ul style="list-style-type: none"> Modularity of masonry minimizes waste Demolition & construction concrete masonry unit waste can be crushed & recycled |
| MRc4: Recycled Content | BD + C: up to 2 ID + C: up to 2 | <ul style="list-style-type: none"> Carboclave normal-weight blocks contain ±4% pre-consumer recycled content (slag cement, CO₂) Carboclave light-weight blocks contain ±69% pre-consumer recycled content (expanded slag aggregate, slag cement, CO₂) |
| MRc5: Regional Materials | BD + C: up to 2 ID + C: up to 2 | <ul style="list-style-type: none"> Carboclave blocks are produced in London, Ontario, and are typically shipped by truck within 800 km radius |
| RPc1: Durable Building | BD + C: 1 ID + C: n/a | <ul style="list-style-type: none"> Concrete masonry units are a proven material for the durability credit based on demonstrated effectiveness. |
| Innovation in Design - Building Product Innovation | BD + C: 1 ID + C: 1 | <ul style="list-style-type: none"> Concrete Carboclave block may be considered for an Innovation and Design point Richvale York Block Inc. will provide the documentation required for credit submission |
| Innovation in Design - MRpc63: Building life-cycle impact reporting | BD + C: 1 ID + C: n/a | <ul style="list-style-type: none"> Pilot credit is based on LEED v4 MR credit <i>Building life-cycle impact reduction (option 4)</i> Data from the CCMPA EPD may be used in whole-building LCA assessments |
| Alternative Compliance Path (ACP) - MRpc84: v4 MR credit category for v2009 projects <i>This pilot credit permits pursuing the entire LEED v4 Materials and Resources category in place of the MR credits from LEED v2009. Carboclave block qualifies for the following MR credits:</i> | BD + C: 3 ID + C: n/a BD + C: 1 ID + C: n/a BD + C: up to 2 ID + C: n/a | <p><u>Building life-cycle impact reduction (option 4)</u></p> <ul style="list-style-type: none"> Data from the CCMPA EPD may be used in whole-building LCA assessments CCMPA EPD data included in the <i>Impact Estimator for Buildings</i> LCA software <p><u>Building product disclosure and optimization - environmental product declarations (option 1)</u></p> <ul style="list-style-type: none"> Richvale York Block Inc. was a participant in the Canadian Concrete Masonry Producer Association (CCMPA) industry-wide environmental product declaration EPD⁴. EPD valued as one half (1/2) of a product for credit calculation <p><u>Construction and demolition waste management</u></p> <ul style="list-style-type: none"> Modularity of masonry minimizes waste Demolition & construction masonry waste can be crushed & recycled |

¹ For further information on LEED® 2009 credits see <https://www.usgbc.org/credits>

² Refers to LEED® Canada For New Construction and Major Renovations, and For Core and Shell Development 2009

³ Refers to LEED® Canada Green Building Rating System for Commercial Interiors Version 1.0 (2006)

⁴ For EPD see http://ccmpa.ca/wp-content/uploads/2016/12/CCMPA_EPD_2016-08-24.pdf

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August, 17, 2017

To whom it may concern:

Re: LEED Pre-Consumer Recycled Content

Lafarge bulk and packaged products uses varying amounts of pre-consumer recycled products in the manufacturing process as listed below

The Pre-consumer recycled content is as follows:

| | | Location |
|-----------------------------------|--------------|---------------------|
| GU Bulk | 13.1% | St. Marys |
| GUL Packaged | 12.4% | St. Marys |
| Type N Masonry | 9.4% | St. Marys |
| Type S Masonry | 10.7% | St. Marys |
| Slag Cement | 100% | Stoney Creek |
| Lightweight Slag Aggregate | 100% | Hamilton |

If you have any further questions or require further information, please do not hesitate to call.

Yours Truly,

Steve Zupko, B.E.S.

Technical Sales Representative

Lafarge Canada-Cement

Cell 519-878-6142



1298 CLARKE RD., LONDON, ON N5V3B5

Please be advised from our location all materials used in the production of our block come from a distance less than 100 kms.

Kind regards,

Luciano Teseo

Vice President-Technical

RICHVALE YORK BLOCK INC. 1-800-265-1592



TO WHOM IT MAY CONCERN

Please be advised all hardwood skids used for the shipping of concrete block are in fact refundable and re-used on average seven times before being cut-up for fire wood, creating NO waste.

If you have any questions, please call.

Kind regards,

A handwritten signature in black ink, appearing to read "Luciano Teseo", with a long, sweeping horizontal stroke at the end.

Luciano Teseo

Vice President-Technical

RICHVALE YORK BLOCK INC. 1-800-265-1592

