

Day & Campbell
LIMITED



**LEED Submission for Autoclave Concrete &
Lightweight Block**

Waste Management

Recycled Content

Material Verification



Architects and Specifiers:

Day & Campbell Limited has always tried to be in touch with the needs of Architects and Industry Standards, this is why we have gone to great lengths to help attain as many LEED points as possible for your building needs, below is a list of credits available to you and a brief explanation of each.

**Optimize Energy
EA Credit 1**

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.

**Construction Waste Management
MR Credit 2.1
MR Credit 2.2**

With the help of our masons and general contractors to control what is put into the bins, Day & Campbell takes back all the product waste from the materials we have provided, re-screens, and reuses the waste material in the manufacturing process of new block. The materials that cannot be used in our manufacturing are stock piled and sold for either base material for construction roads or base material for such things as parking lots. No waste material is ever introduced into landfill sites.

**Recycled Content
MR 4.1
MR 4.2**

We will produce block with as high as 30% post consumer, 15% pre-consumer material in our concrete block and 30% post consumer, 81.72% pre-consumer material in our lightweight block. We have retained our compressive strengths without any additional cement. Also bear in mind that as an Autoclave Producer, our cement contents are half of what a bubble cure, mist cure or any low pressure system uses.

Day & Campbell has also implemented and tested some new technologies which have allowed us to greatly reduce our energy consumption thus reducing our carbon imprint on the environment. Based on these new technologies Union Gas has completed a case study of our operations and its success. Please see attached copy of this case study.

**Regional Material
MR Credit 5.1
MR Credit 5.2**

All other materials that Day & Campbell use in our process are extracted or manufactured regionally.

**Durable Building
MR Credit 8**

Masonry is a proven material for the durability credit based on Demonstrated Effectiveness.

Day & Campbell also reuses and recycles all our Skids which are used in our Block making operations.



Day & Campbell Recycled Block Content:

Concrete Block

$$\text{Cement Reduction: } \frac{10.0 - 5.11}{10.0} = 49\%$$

$$\text{Cement Reduction Factor} = 49 \times 2 = 98\%$$

Total Post-Industrial Recycled Content = 98%

Lightweight Block

$$\text{Cement Reduction: } \frac{11.82 - 5.91}{11.82} = 50\%$$

$$\text{Cement Reduction Factor} = 50\% \times 2 = 100\%$$

$$\% \text{ of recycled Aggregate} \quad 3800/4650 = 81.72\%$$

Total post industrial recycled content = 81.72% + 100% = 181.72%

Based on the mix designs, the previous calculation sheet shows that our concrete block and Lightweight Block have post industrial recycled content of 98% and 181.72% respectively. These values can be submitted under LEED Canada Credit MR 4 for recycled content.

As well, Projects that are within 800 km of our manufacturing facility and raw material sources will also qualify for LEED Canada credit MR 5 for regional materials.

J. Daniel Campbell
President
Day & Campbell Limited