



ECO Pact

The Green Concrete

**SUSTAINABLE CONSTRUCTION
STARTS HERE**

WHY NET-ZERO?

The Intergovernmental Panel on Climate Change has officially reported the vital importance of rapidly progressing towards net zero and setting strong interim targets. This has resulted in many governments around the world to set their own net zero goals. As such, Lafarge too has developed a sustainability roadmap to ensure we are building progress for people and the planet.

DID YOU KNOW?

CARBON NEUTRAL refers to a policy of not increasing carbon emissions and of achieving carbon reduction through offsets.

NET ZERO carbon means making changes to reduce carbon emissions to the lowest amount – and offsetting as a last resort. This is done to achieve an overall balance between greenhouse gas emissions produced and taken out of the atmosphere.

CARBON SEQUESTRATION is the process of capturing and storing atmospheric carbon dioxide. It is one method of reducing the amount of CO₂ in the atmosphere with the goal of reducing global climate change.

WHAT CAN YOU DO?

CONCRETE CAN BE RECYCLED, due to its versatility and inert nature. Thus, it can be used as recycled aggregate within our concrete mixes, reducing CO₂ while also aiding the circular economy. With a performance comparable to natural aggregate, it has many applications, including building products and road construction, reducing residual waste and reliance on virgin resources.

GREENER CONSTRUCTION STARTS WITH THE RIGHT MATERIALS

Concrete is the most reliable and widely used building material in the world, with a whole host of advantages. Technical benefits such as stability, heat and fire protection mean people choose it over and over again for today's ever-improving infrastructure and complex buildings.

That is why, as the demand for more sustainable solutions and developments increase, Lafarge's comprehensive range of products can meet the evolving needs of our customers – without compromise.

GREEN LIVING STARTS WITH GREEN BUILDING

At Lafarge, we're taking responsibility for the impact our products have on the planet. We believe that greener living means creating solutions that deliver better outcomes for the environment, supported through data and backed up with science. Green concrete¹ is just the beginning.

¹ Green Concrete refers to the Lafarge ECOPact offering, which is concrete with a 30-90% reduction in CO₂ (Scope A1-A3) in comparison to the equivalent general ready-mix concrete with no cement substitution.

IT'S TIME FOR A MORE SUSTAINABLE SOLUTION

INTRODUCING OUR NEW ECOPACT RANGE

ECOPact is the start, actively reducing CO₂ in your build, no matter what the project. You can have the same physical performance, as well as improved sustainability performance, without impacting your trades and onsite project performance.[†]

ECOPACT - OVER 30% CARBON REDUCTION

A low carbon concrete utilizing blended cement, that has between 30%-50% CO₂ reduction compared to a standard concrete (OPC) mix.

ECOPACT^{PRIME} - OVER 50% CARBON REDUCTION

An engineered very low carbon concrete utilizing higher blends of cements while also using supplementary cementitious materials. ECOPact^{PRIME} delivers between 50%-70% CO₂ reduction compared to a standard concrete (OPC) mix.

ECOPACT^{MAX} - OVER 70% CARBON REDUCTION

Our lowest carbon range of concrete using cement alternative technology such as alkali activators to achieve 70%-90% CO₂ reduction compared to a standard concrete (OPC) mix.

CO₂ REDUCTION

0%



Standard concrete mix

30%

ECOPact

50%

ECOPact^{PRIME}

70%

ECOPact^{MAX}

90%

100%

Carbon reduction figures are based on comparison to 100% OPC mix.

ECOPact⁺

Each offer can be enhanced with the addition of recycled concrete aggregates.



WHY WE'RE THE PLACE TO BEGIN

SUSTAINABILITY FROM CRADLE TO GATE

From the very beginning of the manufacturing process, we make sure raw materials are sourced as responsibly as possible.

A nationwide network of plants and a robust logistics system, means we can transport materials across the country in a more environmentally-friendly way.

BUILDING A GREENER CANADA

As environmental, ethical and governmental pressure mount for people to make sustainable choices, Lafarge has already started to implement change throughout the organization.

Many of our ranges already have more sustainable options, whether we maximize the use of recycled content or reduce the demand on resources.

EPD TYPE III CERTIFIED PERFORMANCE

Unlike other products in the marketplace, ECOPact comes with third party certified quantifiable data that confirms the reduced carbon, calculating improvements based on CO₂ values from all of our raw material, transportation, and production. This means we can establish the exact CO₂ reduction in each specified mix.

WHAT IS AN EPD

An Environmental Product Declaration (EPD) is an independently verified document demonstrating relevant data about the life-cycle impact of a product.

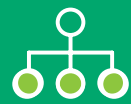
Lafarge is now EPD Type III certified at more than 30 plants in Eastern Canada. And proud to be the first and only ready-mix supplier with EPD certification within Ontario and Quebec.

By having EPD's, Lafarge can now establish the exact CO₂ reduction in each required concrete mix.

How can EPDs help your next project?



Understand
Understand how Lafarge's ready-mix concrete is made



Quantify
Quantify the environmental impact of our ready-mix concrete



Be informed
Make decisions with third-party verified data



Share
Tell the story of Lafarge's ready-mix concrete in your project

DIFFERENCES BETWEEN EPD'S

There are many different types of constituents that are available and can be incorporated into our concrete mix designs.

Each of these constituents, whether it's a powder, an aggregate, or an admixture, will have a specific carbon footprint associated with it.

Therefore, each and every concrete mix design will have a product and location specific EPD document for submission, which will allow your project to incorporate the most accurate CO₂ data available.

There are three types of Environmental Product Declarations (EPD's) currently in the market.

- Industry-Wide (Generic) EPD
- Product-Specific Declaration (also known as EPD TYPE II or a self-declaration)
- Product-Specific TYPE III EPD

Ultimately, the biggest differences are that an EPD Type III is third-party certified as well as guaranteed, whereas the other EPD's are not.



CURRENT TECHNOLOGIES

Today, the concept of low carbon concrete includes incorporating reuse of by-products within the mix designs. By reducing virgin materials and maximizing the use of by-products, we can ultimately reduce a significant amount of our carbon footprint.

ECOPact is a low-carbon concrete product range that can reduce the embodied carbon of buildings, infrastructure, and homes up to 90% without offsets.



Standard concrete mix



Reuse of by-products



90% low carbon concrete

0%

ECOPact or ECOPact^{PRIME}

100%

FUTURE TECHNOLOGIES AND DEVELOPMENTS UNDERWAY...

WHAT'S IN IT FOR ME? GAIN COMPETITIVE ADVANTAGE WITH ECOPACT



CLAIM A CANADIAN FIRST

- ▶ Guaranteed carbon reduction of 30-90%
- ▶ Carbon neutral concrete, certified by Athena and Climate Earth
- ▶ Access to by-products that reduce embodied carbon



MEET GROWING DEMAND

- ▶ Reduce your scope 3 emissions and deliver on your carbon roadmaps and targets
- ▶ Deliver on project specific carbon neutral goals or targets
- ▶ Recognition in LEED rating schemes
- ▶ Meet evolving tender requirements seeking lower embodied carbon alternatives



TAKE THE LEAD

- ▶ Provide innovative solutions in your tenders
- ▶ Appeal to the environmentally conscious consumer and the traditional consumer
- ▶ Make your marketing stand out with a point of difference

MAXIMIZE YOUR PROJECT POTENTIAL WITH ECOPact



ECOPACT LEED CREDITS

LAFARGE PRODUCTS CONTRIBUTION TO LEED CREDITS EARN LEED POINTS IN VARIOUS CREDIT CATEGORIES

Leadership in Energy and Environmental Design or LEED® is an international symbol of sustainability excellence and green building leadership. LEED's proven and holistic approach helps virtually all building types lower carbon emissions, conserve resources, and reduce operating costs by prioritizing sustainable practices. Canada is one of the top territories in the world for LEED certification.

SEGMENT	SUSTAINABLE SITES	MATERIALS AND RESOURCES
BD+C v4 Commercial (Commercial & Institutional Buildings)	Up to 3 Points	Up to 8 Points
BD+C v4 Residential (Residential Buildings)	Up to 3 Points	Up to 0.5 Points
Whole-Building Life-Cycle Assessment (New Construction)	Up to 4 Points	

SUSTAINABILITY CONCERNS EVERYONE

WHY SHOULD YOU CHOOSE ECOPACT?

- ECOPact can improve the carbon footprint of your construction by reducing the CO₂ in your concrete by up to 90%
- ECOPact contributes to a circular economy by diverting waste from landfill and closing material cycles
- To protect our environment and build a better future
- Actively contribute to the environmental conversation
- To be positioned as an industry leader in the sustainability movement



HOW TO GET STARTED

CONTACT US AND LET US HELP YOU CHOOSE THE RIGHT ECOPACT PRODUCT FOR YOUR PROJECT

ORDER YOUR CONCRETE THROUGH THE SALES OFFICE

WE'LL MANUFACTURE AND DELIVER THE CONCRETE TO YOUR PROJECT

WE'LL CALCULATE THE CO₂ FOOTPRINT OF THE ORDER

TOGETHER, WE'LL BUILD A GREENER FUTURE

WANT TO LEARN MORE?

MAPPING OUT CO₂

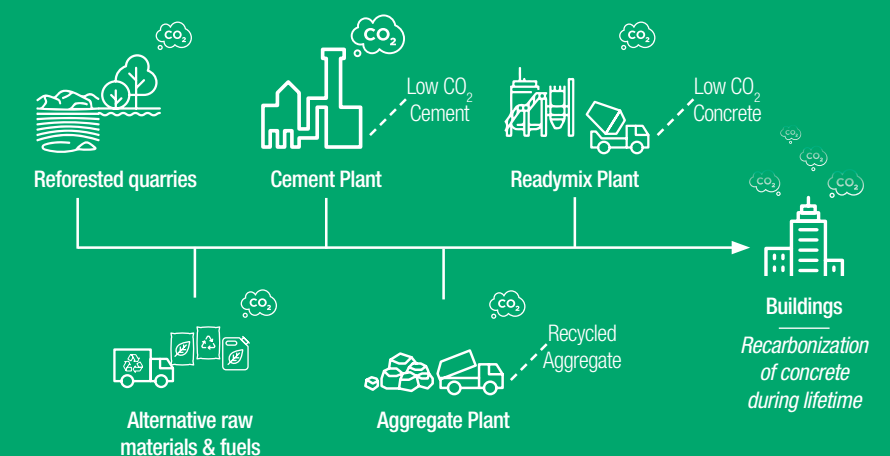
The Carbon in concrete, as we know, is predominantly from cement, but as you can see from the image aside, there are a number of other factors involved.

In Canada, we've been working on reducing carbon in our concrete for years.

Now with EPD's, we have recognized the impact we can truly make on our planet.

Together, with the various product lines within Lafarge, we have converted to lower carbon blended cements, we have maximized the use of recycled aggregates, and optimized our concrete mix designs to truly achieve the lowest carbon mixes.

The various stages of CO₂ emissions contributed from Cement, Aggregate and Concrete production:



WHERE YOU CAN FIND ECOPACT

Find our EDP Type III certified plants, offering the ECOPact certified range, across Canada.

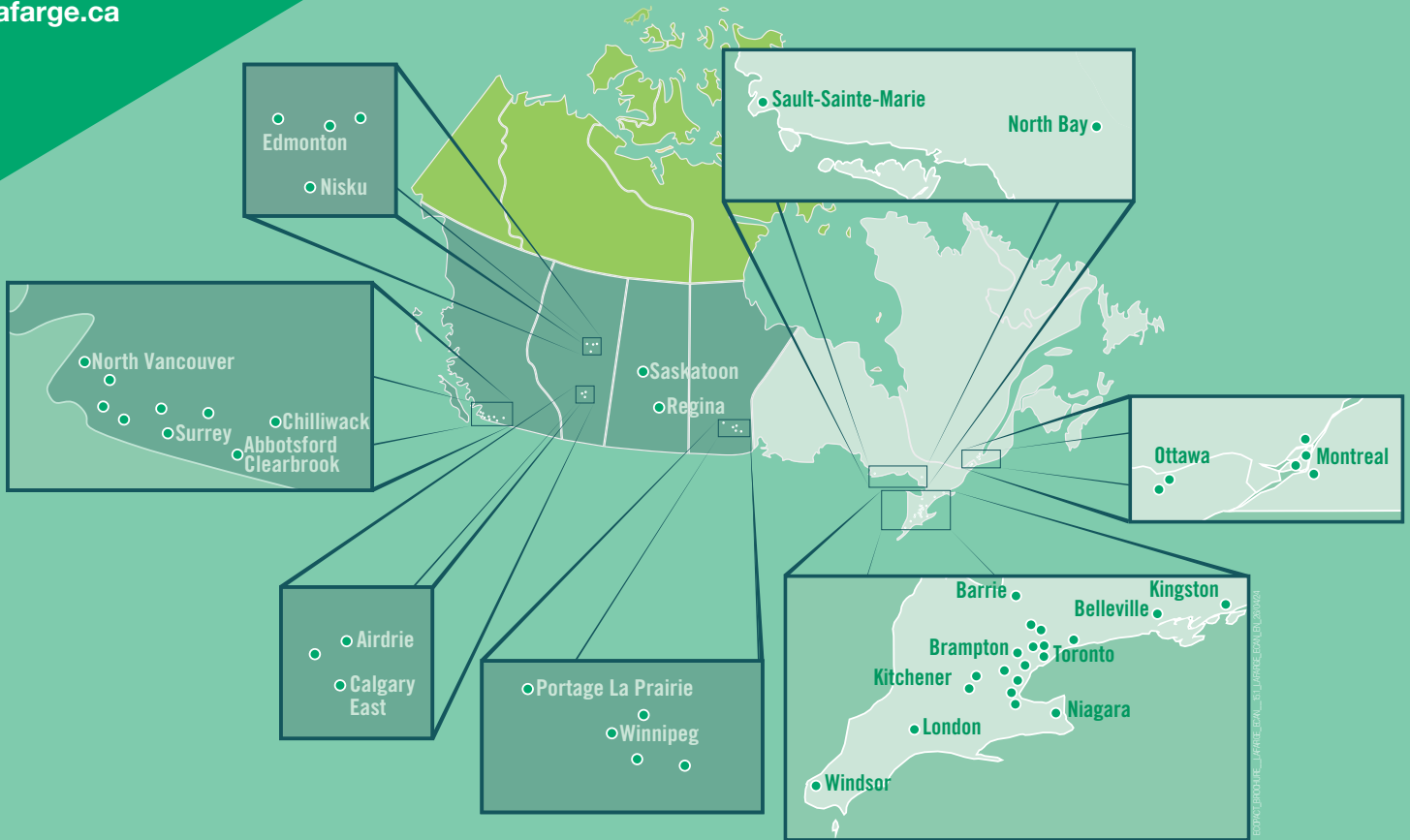
Contact us today to make a difference:

Western Region (403) 225-5400

Ontario Region (905) 738-7070

Quebec Region (800) 361-9134

Lafarge.ca



Our EPD Type III Ready-Mix Concrete Plants:

Western Region

-BRITISH COLUMBIA

- Abbotsford Clearbrook
- Chilliwack
- Coquitlam Port Mann
- Maple Ridge
- Surrey 64th Ave
- North Vancouver
- Richmond Nelson Rd
- Vancouver Harbour
- Vancouver Kent Ave
- Edmonton Stadium Rd
- Edmonton Winterburn
- Saskatoon
- CENTRAL & NORTHERN ALBERTA
- Edmonton Stadium Rd

Edmonton Winterburn

- Nisku
- Strathcona Petroway
- SASKATCHEWAN & MANITOBA
- Niverville Perimeter
- Northland Ready Mix (Oak Bluff)
- Portage La Prairie Perimeter
- Steinbach Perimeter
- Winnipeg Dawson Rd
- Regina
- Saskatoon
- SOUTHERN ALBERTA & PORTABLES
- Airdrie
- Calgary East
- Spy Hill

Ontario Region

- Barrie
- Bearbrook
- Belleville
- Brampton
- Brossard
- Burlington
- Cambridge
- Commissioners (2)
- Guelph
- Hamilton Dock
- Kingston
- Leaside
- London
- Markham (2)

- Mavis
- Milton
- Moodie
- Newkirk
- Niagara Falls
- North Bay
- Pickering
- Quality Hamilton
- Sault-Sainte-Marie
- Wilson
- Windsor

Quebec Region

- Montreal East
- St-Laurent (2)
- Terrebonne

* More and more Plants are EPD Type III certified. Visit Lafarge.ca for the latest updates.

** For all other non EDP certified plants, self declaration available or you're welcome to ask us to certify.

Equivalent performance compared to standard concrete mixes can be achieved with ECOPact for typical low carbon concrete applications and standard curing/site conditions. Reach out to your Lafarge sales & QC representatives to know more about the ECOPact offer and conditions for non-typical low carbon concrete applications such as cold weather concreting and high early strength.