



# CLIMATE CHANGE RESILIENCE



**EIFS** HAS YOU  
COVERED WITH  
ENERGY, CARBON  
AND RESOURCE  
EFFICIENCY.

# CLIMATE CHANGE PRESSURES

Planners today face unprecedented pressure to respond to climate change. Bold new climate change action plans and sustainability requirements are being implemented by law and policy makers across Canada, including the Federal government, which recently pledged \$40M over five years to integrate climate resilience into building design, guides and codes.

One building solution to help planners “reduce the rate of climate change, mitigate its effects, and plan for adaptation,”<sup>1</sup> is

**EIFS: Exterior Insulation and Finish Systems.**

## EIFS: ENERGY EFFICIENT

A building designed with EIFS has every potential to be a high-performance, energy-efficient building. That’s because EIFS has a high R-value – the result of continuous insulation and air and water barriers. This controls air, moisture and heat flow, and virtually eliminates thermal bridging through exterior walls.

No other cladding system comes close to EIFS for inherent thermal efficiency. Controlling both air and heat flow reduces energy requirements for heating and cooling and puts less burden on mechanical systems, which means lower capital investment.

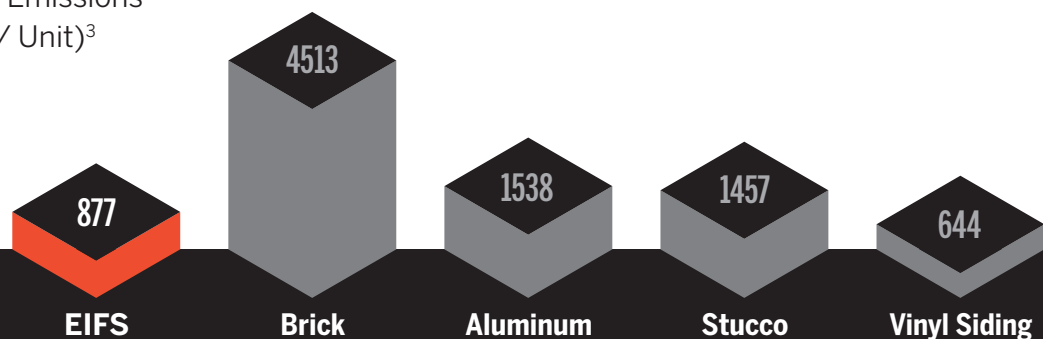
**84%** **MORE ENERGY EFFICIENT THAN COMMON CLADDINGS<sup>2</sup>**

## EIFS: CARBON EFFICIENT

EIFS has one of the lowest carbon footprints of any cladding system on the market today, when considering embodied energy, associated greenhouse gas (GHG) emissions and thermal efficiency. The chart shows the carbon footprint of EIFS compared to various other traditional cladding systems.

### Comparative Carbon Footprint

Carbon Dioxide Emissions  
(Grams of CO<sub>2</sub> / Unit)<sup>3</sup>



## EIFS: RESOURCE EFFICIENT

EIFS contributes to sustainable construction in other ways that are not immediately obvious.

- **EIFS is lighter than mass wall cladding systems;** this allows for significant savings in structural building materials.
- **EIFS has a 50 year service life;** this means fewer resources are needed to maintain an EIFS-clad building.
- The continuous insulation on **EIFS reduces the likelihood of condensation** problems and minimizes repairs required to rectify those problems.
- EIFS can be used to rehabilitate existing buildings without having to remove and dispose of the original cladding – **no waste, no recycling, no landfill.**



## EIFS: “THE PERFECT WALL”

Contemporary designers who understand the value proposition of EIFS will be successful in creating high performance buildings with sustainable low-carbon and low-energy intensity materials. As a bonus, EIFS offer virtually unlimited aesthetic flexibility; specialty finishes can replicate brick, granite, limestone, metal panels and precast.

As renowned building envelope expert, John Straube, states in his 2012 book, *High Performance Enclosures*:

Exterior insulation finish systems, when using a drainage gap and air-water control membrane, are a **practical implementation of the perfect wall.**

<sup>1</sup> CIP Policy on Climate Change

<sup>2</sup> U.S. Department of Energy/Oak Ridge National Laboratory, 2009

<sup>3</sup> Lifecycle Assessment, US National Institute for Standards and Technology (NIST), 2007

\* A longer, slightly different version of this article appeared in *Construction Canada* in January 2016.





**EIFS is a cost effective means of achieving high performance thermal enclosures...nowhere in the literature [is it] not ranked highly among alternatives.**

Professor Ted Kesik, Ph.D., P. Eng.  
Daniels Faculty of Architecture, Landscape and Design  
University of Toronto



**EIFScouncil.org**

**WE HAVE YOU COVERED.**

