



# REDUCING THE EMBODIED CARBON OF WALLS IN OUR BUILDINGS OF TOMORROW

Formawall Dimension Series vs. Architectural Masonry

CENTRIA goes beyond beauty and performance to provide sustainable design options. Our commitment to sustainability has resulted in some of the most innovative building products on the market today. CENTRIA meets sustainability needs of customers by developing environmentally friendly products, reducing our overall consumption of energy and harmful chemicals, and continuing the path of social responsibility.

CENTRIA is part of Nucor®, an industry leader in sustainable steel making and manufacturing of high performance building components. These components deliver the environmental, economic and health criteria considered when determining a project's overall sustainability. As the demand for environmentally friendly construction materials grow, so does our emphasis on creating green products.

**Nucor is committing to a 35% reduction in GHG intensity by 2030. Beyond 2030, we are committed to the journey towards net-zero emission steel.**

***Nucor is leading the industry in sustainability.***



*Targeting 35% reduction in Scope 1 and 2 GHG emissions intensity by 2030*



*The largest buyer of renewable energy in the steel sector*



*Steel & steel products made from an average of 77.3% recycled content*



*100% water recycled in our operations*



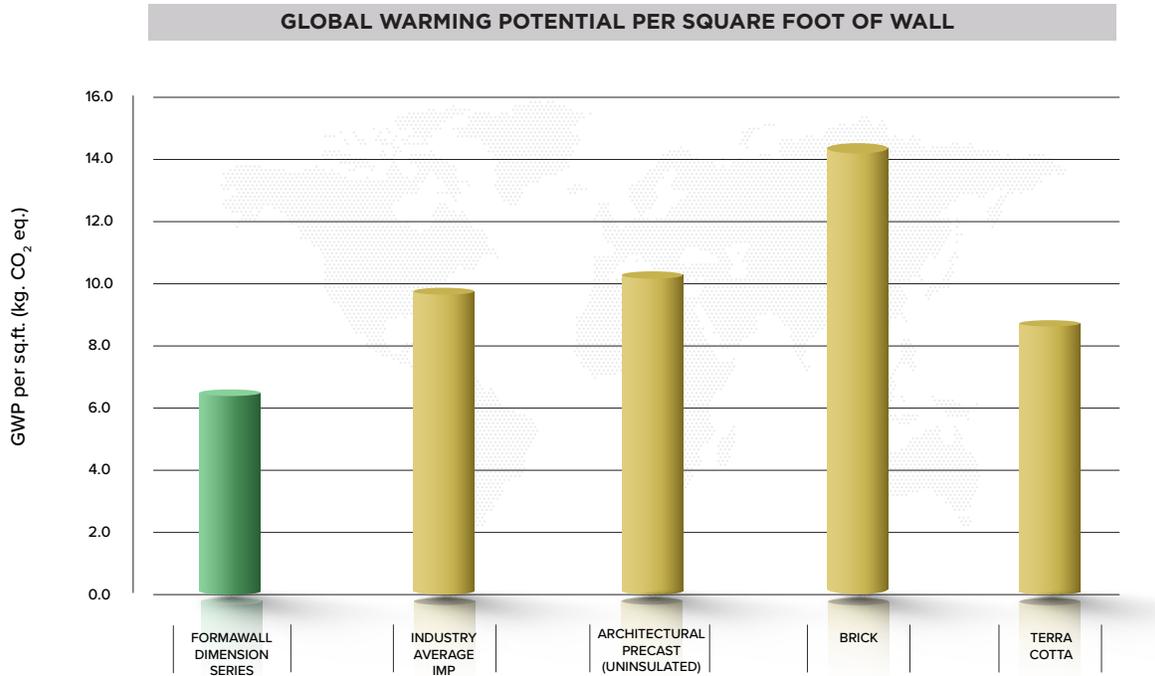
*Introduced the world's first net-zero carbon steel, Econiq™*



## EMBODIED CARBON CONTENT

As the impacts of climate change are increasingly felt around the world, CENTRIA and Nucor are committed to play a part in the complex challenges of climate change. One major contributor to climate change is carbon dioxide emissions. By conducting a Life Cycle Analysis (LCA), we are able to evaluate the amount of carbon dioxide released during the creation of a product, including contributions from upstream processes like raw material extraction, through manufacturing and packaging, up to shipping and transportation of the final product.

The figure below presents the equivalent carbon content per square foot of installed wall based on LCAs published by various trades. All values represent the cradle-to-gate stages of a life cycle analysis – in other words, data is incorporated from the extraction and processing of raw material, transportation of raw materials to the manufacturer, and the manufacturing process of the product.



Examining the data above, Insulated Metal Panels (IMPs) on average contain less embodied carbon than precast concrete and brick, and Formawall Dimension Series in particular performs even better. Dimension Series contains less than half of the embodied carbon content of brick, and 36% less than architectural precast concrete.

Additionally, Formawall Dimension Series functions as the insulation and weather barrier for the wall and can be installed directly to support framing – the above values for precast concrete, brick, and terra cotta do not consider insulation, weather barriers, or other materials that may be necessary for a multi-component wall assembly. Therefore, the embodied carbon content for the total wall incorporating one of those products would be even higher in comparison to Formawall Dimension Series.

Precast concrete and other masonry products have considerable greenhouse gas emissions due to the cement concentration in those materials. The primary contributor to the embodied carbon of Formawall Dimension Series is the production of steel coil used for the panel liners. As Nucor continues to progress towards our GHG reduction targets and introduces more sustainable steel production practices, we can expect the embodied carbon content of CENTRIA products to be even lower in the future.

Combining red-list free foam with low embodied carbon, Formawall Dimension Series is an efficient and sustainable choice for your next architectural project.

**Contact CENTRIA today!**

**[www.CENTRIA.com](http://www.CENTRIA.com)**

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