

# RETROFIT BIOCOMPOSITE PANEL

SUSTAINABLE, LIGHTWEIGHT AND FIRE-RESISTANT EXTERNAL INSULATION



The Calmura Natural Walls exterior insulation panel is the perfect solution for quick and low-cost residential retrofit projects. This biocomposite panel is manufactured using waste wood resources and a lime+clay binder to lock biogenic carbon in walls while improving energy efficiency and protecting homeowners.

Due to the lightweight masonry binder, these external panels have comprehensive performance, including:

- Thermal insulation & thermal mass
- Radiant (UV) heat resistance
- High fire resistance with no flame spread
- Excellent sound dampening
- Breathability for rot and mold resistance
- Pest and rodent resistance
- No toxic vapour (VOC) off-gassing



Calmura EXT Insulation Panels

**CALMURA NATURAL WALLS IS LOOKING TO TRANSFORM THE BUILT ENVIRONMENT WITH MATERIALS THAT ARE HEALTHY FOR THE PLANET AND PEOPLE.**

## PROPERTIES

Dimensions	600mm x 1200mm x 70mm
Weight	16 kg
Bulk Density	330 kg/m <sup>3</sup>
R-Value	R6 Ft <sup>2</sup> -F-hr/BTU
Flame Spread	0 per ASTM E84
Smoke Developed	0 per ASTM E84
Compression	< 1 MPa
LCA Analysis (est.)	75 kg/m <sup>3</sup> CO <sub>2</sub> e sequestered

## MAIN BENEFITS FOR GREEN BUILDING STANDARDS

*Optimized Energy Efficiency*  
*Low-Emitting Materials*  
*Biogenic Carbon Sequestration*  
*Envelope Fire Resistance*  
*Waste Materials Reuse*  
*Durable Building Solutions*

## SIMPLIFIED RETROFIT INSTALLATIONS

Calmura Natural Walls' natural, modular biocomposite panels provide a rigid, exterior blanket improving building envelope efficiency.

These panels are easily cut and fit externally to precise architectural details, without disturbing building occupants. The panels are simply finished with a vapour-open lime stucco once installed to provide weather protection, without affecting the original envelope.

This external insulation blanket would provide excellent insulation value along with window and door replacement, and heat-pump installation for deep energy retrofits.

***We store biogenic carbon while reducing energy use of buildings!***

**CALMURA IS SEEKING EXPRESSIONS OF INTEREST FOR OUR INNOVATION, AND WOULD APPRECIATE YOUR INFO AND COMMENTS AT [CALMURA.CA/RETROFIT](https://www.calmura.ca/retrofit)**

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