



GELCLAD



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Highly efficient cladding eco-panels with improved nano-insulation properties

PROJECT NUMBER
723425

STARTING DATE
01/09/2016

DURATION
36 months

CALL IDENTIFIER
H2020-EEB-2016

The **Gelclad Project** aims to generate an affordable advanced external wall insulation system for building envelopes. Gelclad will be a sustainable lightweight, ready-to-use composite product, made of a distinct aerogel insulation core and a weatherproofing ecoWPC skin panel in one single and easy to handle unit, able to attain high energy efficiency goals and specially designed for the major building renovation action desired for EU.



High thermal performance

Rigid board-like aerogel solution exceeding the performance of traditional insulation materials by 45%

Availability at acceptable costs

Cut current aerogel foam cost in about 1/3
Competitive with conventional façade systems (e.g. ventilated façades, ETICS)

Extended service life

30 years + with less maintenance
(moisture resistance, vapor permeability, dimensional stability, UV resistance, mould attack, etc.)

Easy Installation

Modular lightweight panel system ready for fast installation
No specialized tools / training (cut labor costs by 65%)

Sustainability focus

More eco-friendly aerogel production technologies
Use of organic fibers, bio-plastics and recycled polymers

Industrial innovation

Multifunctional panel solution made by co-extrusion/injection production technology
Excel production levels and cut manufacturing costs

GELCLAD AEROGEL CORE

Extrudable/injectable low-cost aerogel-based core material having a thermal conductivity below 20mW/mK and other enhanced building application features.

FUNCTIONALISED GELCLAD ECOWPC FRAME

Eco-friendly WPC formulations based on wood fibres, bio and/or recycled polymers and functional additives.

GELCLAD INTEGRATION PRODUCTION SYSTEM

Industrial co-extrusion/injection line for the making of GELCLAD panel's functional aerogel core and weatherproof skin frame components.

GELCLAD MODULAR PANEL

GELCLAD façade cladding panel comprising, in a single easy to install product, a nano-insulation core and an environmentally friendly composite skin frame.

SMART ADAPTIVE CONTROLLING VENTILATION SYSTEM

Module that dynamically responds to ambient stimulus (e.g. temperature and humidity), improving the ventilation of the façade system.

PARTNERS



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