

Table 1 Major outputs of ICECLAY project and their applications in the construction sector.

ICECLAY Outputs	Functionality and use
Boards and (film) strips	<ul style="list-style-type: none"> -to achieve exceptionally low thermal conductivity values; -reduced thicknesses (lower than 20mm); -flexible, non-brittle and easily handled; -fine acoustic absorption, can act as good moisture and fire-resistant barriers; -flexible for advanced and energy efficient HVAC systems; -film strips capable of being glued onto building structural framing members or construction materials intersections for thermal bridging breaker.
Shredded pellets	<ul style="list-style-type: none"> -successful application on filling cavity walls in the form of small shredded granules in a loose-fill state; -filling the holes of load bearing clay bricks replacing, with improved thermal efficiency, materials like mineral wool ($38 \text{ mW m}^{-1} \text{ K}^{-1}$) and perlite ($40\text{-}60 \text{ mW m}^{-1} \text{ K}^{-1}$) that are currently used.
Filler materials	<ul style="list-style-type: none"> -concrete filling to improve the thermal insulation of the final concrete product; -gypsum boards: clay aerogel powder capable to be mixed along with the initial gypsum slurry for thermal and sound absorbing performances; -plasters and coatings: ICECLAY aerogel particulate outperforms standard fillers like perlite or expanded polystyrene; -reduction of the cost of VIP boards.
Software	<ul style="list-style-type: none"> -design composition for best clay aerogel; -establishment of processing parameters with the performance of clay-aerogel; -design high performance of building systems with the advanced clay-aerogel and clay-polymer aerogel; -tool for on-site thermal performance of the wide range of clay-aerogel related products.



Figure 1 ICECLAY products.