

High-tech system made of high-performance composite profiles for walls and facades**High-tech system made of high-performance composite profiles for walls and facades**

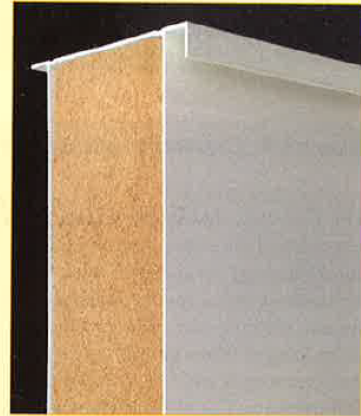
This innovative system for buildings uses high-performance pultruded composite materials. Each profile is designed as a block that can receive any type of insulation inside (bulk materials, recycled materials...) and all types of technical and esthetical facade equipment outside. It also makes it possible to integrate water, air conditioning, electricity and communication systems inside. Fabricated and pre-assembled in the factory, the profiles arrive on site as complete walls, ready-to-set.

On site, the pre-fabricated blocks are installed and secured altogether. The very thin joint between the panels significantly reduces thermal bridges compared to other more traditional constructions made of wood, concrete, or bricks. This innovative concept is designed for all types of constructions: buildings, individual housing, commercial and industrial buildings. It forms a load-bearing wall that can support several floors. Each

profile is made of a thermoset resin-based composite material reinforced with fibreglass and filled with an insulating material, weighing less than 20kg/m.

Due to their significantly reduced unit weight, the profiles can also be used in singular situations such as construction sites with difficult access, upward extension of buildings or construction sites that require low weights. The profile is a basic, easy-to-customize product. The block height can be configured according to the project's floor height and the 600 mm-wide profiles make it possible to integrate claddings and joinery: photovoltaic panels, green walls, laminated or ceramic panels, wood battens, as well as many types of equipment such as pergolas, balconies, and sun blinds, all of this without creating any thermal bridges.

The Wall E+* system is classified M1 (self-extinguishing composite mate-

Construction**Winner: Solutions Composites (France)**

rials) and F0 (no toxic smoke release). It also shows resistance to climatic conditions, infiltration and exfiltration of air and water (rain, infiltration water, condensation water, snow, ice, etc.). The insulating wall solves the impermeability problem by multiplying its functions: with the external facing being separated from the inside block, the system is a water- and air-proof solution.