CarbonCast Insulated Architectural Cladding

CarbonCast Insulated Architectural Cladding looks like conventional architectural precast, but weighs up to 40 percent less and delivers insulation values starting at R-8.

This exterior wall system is intended for horizontal placement as a non-load-bearing spandrel or column cover. Each sandwich-type precast panel uses C-GRID® carbon fiber grid connectors between two 1.75-inch-thick inner and outer concrete wythes reducing weight by up to 40 percent. Continuous insulation (c.i.) positioned between wythes achieves insulation values starting at R-8 for significant energy cost savings.

C-GRID carbon fiber grid reinforcing enables CarbonCast Insulated Architectural Cladding to be thinner, lighter, more durable and less costly overall than conventional precast and other building systems. With relatively low thermal conductivity, high-strength C-GRID truss connectors help deliver a panel with continuous insulation starting at R-8 and going up to R-20 or more depending on insulation thickness to meet or exceed the ASHRAE 90.1 Energy Standard.

As a result, CarbonCast Insulated Architectural Cladding offers:

- **Reduced load and superstructure:** In most cases, lighter panels allow the building's superstructure and foundation to be engineered for less dead load resulting in significant cost savings and a lower CO2e footprint
- **Improved thermal performance:** High steady state R-values and continuous insulation save long-term energy costs and first costs for HVAC systems
- Lower transportation costs: Manufacturers can ship more panels on each flatbed truck, lowering fuel consumption and related costs
- Smaller cranes: The size and expense of crane(s) can be reduced with lower-weight panels
- Seismic performance: Lighter panels are generally more desirable in high-seismic areas

Panels can also accommodate a variety of finishes and articulations, including sandblasting, reveals, bullnoses, cornices, thin brick, medallion insets and more for remarkable aesthetic flexibility. Ultra-durable, pre-finished interior walls made ready-to-paint, eliminate the cost and time required to install drywall or other surfaces.

Additionally, panels are produced with local and regionally sourced materials. Typically 80-90 percent of the materials are extracted, manufactured, delivered and installed within 100-500 miles of all project sites. Transporting and erecting the panels within a 500-mile radius requires less fuel and reduces emissions. Building materials, construction site noise and dust are minimized since the panels are manufactured in a controlled environment.

This enclosure system is ideal for low-, mid- and high-rise applications and has been used on structures nationwide including Proximity Hotel, the nation's first-ever LEED® Platinum certified lodging establishment. Its unparalleled thermal and moisture protection, insulation and fireproofing is based on the extensively tested CarbonCast High Performance Insulated Wall Panel. It was developed by AltusGroup, a national network of 14 precast concrete producers.

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