

ICC-ES ESR#2953 Verifies that AltusGroup's CarbonCast High Performance Insulated Wall Panels Meet Code Requirements

Important recognition validates performance and code compliance of precast wall assembly featuring C-GRID carbon fiber grid connector and rigid foam insulation

Bethlehem, Pa. ([PRWEB](#)) February 17, 2014 -- [CarbonCast High Performance Insulated Wall Panels](#), manufactured by [AltusGroup precasters](#), have received an evaluation report (ESR#2953) from [ICC Evaluation Service](#) (ICC-ES), providing evidence that the CarbonCast wall panels meet code requirements. CarbonCast High Performance Insulated Wall Panels with innovative C-GRID shear truss connectors and rigid foam insulation were tested in accordance with ICC-ES Acceptance Criteria AC-422. The accepted report, ESR#2953, was published by ICC-ES in February 2014.

Building officials, architects, contractors, specifiers, and designers utilize ICC-ES Evaluation Reports to provide a basis for using or approving products in construction projects under various ICC building codes. Many municipalities and building jurisdictions require an ICC-ESR certification before allowing use of a structural building product in their area.

[C-GRID carbon fiber grid](#) connectors are the enabling technology in CarbonCast High Performance Insulated Wall Panels. They are used to connect the inner and outer wythes of concrete. The high strength of carbon fiber grid enables full composite action within the panel, while its relatively low thermal conductivity results in negligible thermal transfer throughout the panel. As a result, CarbonCast High Performance Insulated Wall Panels provide continuous insulation (c.i.) to meet the ASHRAE 90.1 standards and can be used to significantly reduce energy consumption related to heating or cooling a structure.

ICC-ES President Shahin Moinian explains why ICC-ES Evaluation Reports are so important. "AltusGroup precast manufacturers can now reference the evaluation report to ensure building officials and the building industry that the product meets I-Code requirements," Moinian said. "Building departments have a long history of using evaluation reports, and ICC-ES operates as a technical resource with the highest quality of product review for the building department. Final approval of building products is always in the hands of the local regulatory agency."

ICC-ES thoroughly examined AltusGroup's product information, test reports, calculations, quality control methods and other factors to ensure the product is code-compliant. Testing for much of the ICC-ES criteria was completed in the accredited Constructed Facilities Laboratory of North Carolina State University, Raleigh, N.C., along with prior research and testing done at other independent laboratories and agencies. Dozens of precast sandwich test samples were submitted by AltusGroup precasters nationwide to verify the performance of the C-GRID connector and assembly across the group's North American manufacturing base in satisfaction of the AC-422 criteria.

John Carson, executive director of AltusGroup, said the report issuance was the culmination of two years of test work and coordination with dedicated technical team members and advisors working closely with the ICC. "We are confident that this report represents the most significant body of test work for shear flow and insulated sandwich panels and insulation systems to date," he said.

Jason Lien, Vice President of Design for EnCon United, Denver, Colo., coordinated the submission effort for

AltusGroup 's Technical Committee. “The report should put to rest any and all performance questions concerning the CarbonCast technology using expanded polystyrene (EPS) insulation and carbon fiber grid shear trusses,” Lien said. “ESR#2953 should bring a full new body of work to the sandwich wall panel market as well as be of significant benefit for West Coast wall designers and specifiers seeking lighter weight walls and enclosure systems to meet new stringent seismic codes and demanding energy, ASHRAE and IEC requirements. “

Members of the AltusGroup Technical Committee involved with the ICC certification were Jason Lien (EnCon United), Harry Gleich (Metromont), Larbi Sennour (The Consulting Engineers Group), Dr. Thomas Harmon (Washington University of St. Louis), Sami Rizkalla (North Carolina State University), Hussam Kakish (Enterprise Properties, Inc.) and Pat Hynes (Knife River Prestress Division). Companies that contributed samples to the test included Oldcastle Precast – Building Systems Division (Edgewood, Md.), Heldenfels (San Marcos, Tex.), Metromont (Charlotte, N.C.), IPS (River Rouge, Mich.), Enterprise Precast (Omaha, Neb.), Knife River Prestress Division (Harrisburg, Ore.) and High Concrete, (Denver, Pa.).

AltusGroup precast concrete manufacturers have installed more than 28 million square feet of CarbonCast wall and deck area on over 700 structures since introducing the technology in 2004.

About AltusGroup

The first-ever international partnership of precast companies, AltusGroup was founded in 2003 to develop, manufacture and market precast innovations such as the award-winning CarbonCast® line of products featuring C-GRID carbon fiber grid reinforcing. With more than two dozen structural and architectural locations in the United States, the 16 North American and three international AltusGroup companies have an unparalleled network of manufacturing plants, technical staff and sales personnel to ensure architects, engineers and contractors get the help they need—and the quality and performance they expect—when they select CarbonCast products. For more information, visit altusprecast.com or call 866-GO-ALTUS.

About ICC-ES

A nonprofit, limited liability company, ICC-ES is the United States' leading evaluation service for innovative building materials, components and systems. ICC-ES Evaluation Reports (ESRs) and PMG Listings provide evidence that products and systems meet requirements of codes and technical standards. ICC-ES also issues environmental reports verifying that products meet specific sustainability targets defined by today's codes, standards, green rating systems and ICC-ES environmental criteria. ICC-ES is a subsidiary of the International Code Council® (ICC®). ICC-ES evaluation reports are public documents, available free of charge on the internet, not only to building regulators and manufacturers, but also to contractors, specifiers, architects, engineers, and anyone else with an interest in the building industry. For more information, please visit www.icc-es.org.

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