



INNOVATIONS FOR LIVING®

# Army-Tough, Energy-Efficient Barracks Facades have Hearts of PINK® FOAMULAR® Insulation





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When it was time to specify the continuous insulation (ci) to cover the sheathing and steel stud framework of two new barracks buildings at Fort Benning, Ga., the design-build team had several factors to consider:

One consideration was their goal of having the two structures certified in the silver category under LEED® (Leadership in Energy and Environmental Design) by the U.S. Green Building Council (USGBC). Another was having confidence that the insulation meets the air permeance requirements of ASTM standard E2178-03 and would contribute to passing the air barrier test required by their customer, the U.S. Army Corps of Engineers (USACE).

While Owens Corning™ PINK® FOAMULAR® extruded polystyrene (XPS) insulation has many positive attributes—such as being made with a zero ozone-depleting blowing agent, lifetime limited warranty\* and the only XPS insulation certified for both recycled content and indoor air quality—the factor that tipped the scale in favor of FOAMULAR® insulation was third-party documentation that shows the product meets the air permeance requirements of standard E2178.



By Aero Photo, Inc.; courtesy Balfour Beatty Construction

“Our wall design and product specifications were conservative because we wanted to be sure the buildings would pass the USACE-required air barrier test on the very first attempt, which they did,” said architect Eric Letbetter of Niles Bolton Associates, Atlanta.

In addition to 2" thick FOAMULAR® 250 insulation, the brick veneer wall system also includes fiberglass-faced gypsum sheathing, tape, brick ties and 1" thick spray foam in the steel stud cavity. The design-build team is pleased with the result and has already submitted the project to USGBC for LEED® certification.

The new barracks at Fort Benning are the major portion of a \$40 million project to create a new Basic Training Reception Center to support new, incoming troops. The two structures will provide 300,000 square feet of housing. Preconstruction began in the fourth quarter of 2009 and the facilities were completed in the third quarter of 2011.

The project for USACE was awarded to Balfour Beatty Construction, which in turn engaged Niles Bolton Associates and Woolpert, Inc., to help with design. EWI (Exterior Wall Inc.) was the contractor for the sheathing and foam insulation. On-time delivery of the six truckloads of FOAMULAR® insulation from Owens Corning helped keep the project on schedule.

\*See actual warranty for complete details, requirements and limitations.



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## Continuous Insulation

Continuous insulation (ci) is required over steel stud framing by ASHRAE 90.1—the energy standard for commercial buildings and for residential buildings greater than three stories in height—when using the prescriptive compliance method. ASHRAE 90.1 is referenced in the International Energy Conservation Code and is in effect over much of the U.S.

Continuous insulation is defined as “insulation that is continuous across all structural members without thermal bridges other than fasteners and service openings. It is installed on the interior, exterior or is integral to any opaque surface of the building envelope.” The requirement for “ci” over steel stud framing was first incorporated in the ASHRAE 90.1-1999 edition.

## About FOAMULAR® Insulation

Owens Corning™ PINK® FOAMULAR® extruded polystyrene (XPS) insulation saves energy and reduces greenhouse gas emissions by providing a durable exterior insulation that is resistant to moisture and physical damage, and provides an insulating value of R-5 per inch. FOAMULAR® insulation products are used in above- and below-grade applications in residential, commercial and industrial markets.

Since 2009, the company has been making FOAMULAR® insulation with new blowing agent technology developed by Owens Corning. The new technology allows the company to manufacture its foam insulation in North America with more than a 70 percent reduction in greenhouse gas emissions and zero ozone depletion compared to previous-generation technology.

FOAMULAR® insulation is also GREENGUARD Indoor Air Quality Certified® and certified under the even more stringent GREENGUARD Children & SchoolsSM. In addition, Owens Corning is the only manufacturer with a lifetime limited warranty\* for FOAMULAR® XPS insulation which maintains at least 90 percent of its R-value for the lifetime of the product.



To learn more about Owens Corning™ FOAMULAR® insulation and applications that can benefit from XPS insulation, please visit: [www.owenscorningcommercial.com](http://www.owenscorningcommercial.com).



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Courtesy Balfour Beatty Construction

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