EPS SOLUTIONS FOR A COMPLETE BUILDING ENVELOPE
Quad-Lock Building Systems is a manufacturer of expanded polystyrene (EPS) insulation products for use in residential and commercial construction.

Established in 1994, we became one of the first manufacturers of flat-wall insulating concrete forms (ICF), and we remain an industry leader and innovator to this day. Our unique and versatile ICF system has expanded over the years to include lightweight suspended slab forms and other rigid EPS products, making us a one-stop-shop for your building envelope needs.

At Quad-Lock, we understand that high-quality construction requires the right products and a skilled team to get the job done. Our network of trained professionals can help you with product selection, product support, estimating and training, while our ISO 9001 quality management system will ensure that you’re satisfied with those products and services.

Take a look at some of the areas of your project we can help you with:

- Basement Foundations
- Under-Slab Insulation
- Lightweight Suspended Slabs
- Above Grade Wall Assemblies
- Tapered Roof Systems
- Energy Retrofits
- Geofoam

The building sector has the most potential for delivering significant and cost-effective GHG emission reductions.

UNITED NATIONS ENVIRONMENT PROGRAMME

Did you know that adding more insulation to your building has one of the shortest payback periods out of any building upgrade? Not only this, but it’s also the cheapest way to avoid carbon dioxide emissions compared to other greenhouse gas mitigation measures.

When it comes to choosing which type of insulation best suits your needs, here are some facts to consider about EPS:

- R-3.7 to R-4.2 per inch depending on EPS Type
- Stable R-Value that delivers long-term, reliable energy efficiency for the life of the application
- Mold-resistant in accordance with ASTM C1338
- Low moisture retention, high drying potential in accordance with ASTM C1512
- Manufactured locally, reducing environmental impact of transportation

EPS: The Most Cost-Effective Way to Add Value
The Building Envelope: Quad-Lock has You Covered

1 - Quad-Lock ICF
2 - Quad-Deck Suspended Slabs
3 - Underslab Insulation
4 - Interior/Exterior Wall Insulation
5 - Flat or Tapered Roofs
Quad-Lock Insulating Concrete Forms

The Wall Assembly that Saves Time and Money

Energy efficient. Resilient. High-performance. These are the qualities of the future, and the characteristics of Quad-Lock’s signature insulating concrete forms (ICF). The ability to meet and exceed building codes in a cost effective manner is not only a priority for contractors, but a requirement that the modern homeowner is demanding—and Quad-Lock delivers.

Quad-Lock ICF is a modular concrete form made of EPS foam. It’s designed to stay in place after concrete has been poured to help insulate your structure. The system can be used for both below-grade and above-grade wall assemblies in many types of construction including single-family and multi-family residential buildings, office buildings, hotels, schools, agricultural facilities, etc.

Quad-Lock’s Insulating Concrete Forms have been independently tested and approved for use as stay-in-place formwork for structural concrete, loadbearing and non-loadbearing below-grade and above grade walls. For a full Code Compliance Research Report, please visit our Technical Library at www.quadlock.com

A One-Step Assembly

No Form Stripping

ICF requires no form stripping, de-nailing or cleaning since the EPS foam remains in place.

No Framing

Quad-Lock eliminates the need for framing. Interior and exterior finishes can be fastened directly to our plastic ties, while electrical components and plumbing are embedded in the EPS foam.

No Additional Insulating

They’re called insulating concrete forms for a reason! The EPS panels provide continuous insulation with effective R-Values ranging from R-22 to R-59.

Eliminate Membranes and Tapes

Tired of putting up delicate air barriers? Taping seams? Patching holes? Quad-Lock ICF requires no additional air barrier, vapor barrier or weather-resistant barrier (WRB).

Fewer Tools. Fewer Trades

With such a simple installation process, our lightweight ICF system can be built by smaller crews in less time and with fewer tools and equipment.

Versatile

Our modular panel system makes it easy to build complex angles, radius walls and openings. Plastic ties simplify working around large amounts of rebar.

Built to Last

In addition to the immediate cost and time savings during construction, Quad-Lock ICF offers benefits that will last the life of your building.

Resilient

Reinforced concrete structures outperform almost every other building type in the face of natural and man-made disasters.

Fire Resistant

Quad-Lock offers a 3 and 4 hour FRR for its 6” and 8” concrete form, respectively.

Low-Maintenance

Both concrete and EPS are highly resistant to degradation by water exposure, and our EPS panels have been independently tested and shown to be 100% mold-resistant.

Comfortable

The inside of a Quad-Lock ICF building maintains a more consistent temperature with higher air quality and no drafts.

Reduced Monthly Heating Bills

Airtight concrete and continuous insulation are an amazing energy-saving combination.

Soundproof

Our wall assemblies with STC 50+ will provide a quiet living space, no matter where the building is located.
Lightweight Suspended Slabs with Quad-Deck

Quad-Deck is a pan-style ICF system that provides the formwork for suspended concrete floors and roofs. The side-by-side EPS panels create a series of concrete joists with a minimized slab on top reducing the overall weight, but maintaining the same structural integrity as a traditional slab.

The Quad-Deck Advantage

Easy Installation
Quad-Deck EPS panels are very lightweight and only require shoring beams every 6ft. Metal furring strips provide significant rigidity and eliminate the need for plywood.

Long Spans
Our panels come in 7" to 12.5" thicknesses, so you can span up to 33 feet at 40 psf. For full span tables, consult our website.

A Lighter Structure
Quad-Deck floors and roofs require roughly half the concrete of conventional suspended slabs and over 30% less steel.

Compatible
Quad-Deck integrates well with different wall types including ICF, cast-in-place concrete, precast concrete, CMU, and more.

Thermal Separation
EPS panels provide R-16 to R-33 effective insulation depending on their thickness, ideal for multi-family or compartmentalized construction.

Fire Resistant
Quad-Deck cost-effectively provides a 2-hour Fire Resistance Rating (FRR). The EPS is also treated with the same fire retardant as the ICF system, giving it a flame spread index of 25 or less.

Quad-Lock’s Rigid EPS for Under-Slab and Exterior Insulation

Whether it’s a new build, add-on, retrofit or renovation, Quad-Lock’s rigid EPS products are a cost-effective way to meet your project’s insulation requirements, with a lower cost per R-value than many other types of insulation.

1 - Exterior Insulation
Continuous exterior insulation is becoming the new standard and Quad-Lock delivers a wide range of rigid EPS products that are compatible with any new or existing wall assembly.

2 - Under-Slab Insulation
Adding more insulation beneath a basement foundation or slab-on-grade is an easy and low-cost way to improve your building’s energy performance with no aesthetic consequences.

Flat or Tapered Roof Systems
Our EPS billets can be customized and cut to any shape to achieve the R-value and pitch your roof requires, and it can be cut for a precise fit on site. This design versatility translates into considerable savings in labor and framing costs.

Characteristics of our Rigid EPS

- Up to R-4.2 per inch of thickness
- Retains its R-value when wet
- R-value does not diminish over the life of the product
- Available in standard and custom sizes
- Available in many different densities and compressive strengths
- 100% resistant to mold growth
- Fire retardant with a Flame Spread Index of 25 or less
Building for the Future

Building and energy codes are changing globally and the minimum standards for thermal performance, fire resistance, energy efficiency and resilience are increasing in all new construction.

As these changes take place, it will become even more important to invest in building methods that meet these enhanced requirements in a simple and cost-effective way.

Building a more insulated and airtight envelope is by far the cheapest way to improve energy efficiency in today’s buildings. Whether you’re constructing a hotel, school, condominium complex or single family home, Quad-Lock has a solution to help you from the foundation to the roof.

Let’s work together to leave behind beautiful, energy-efficient and durable structures that will benefit owners, occupants and communities for generations to come!

Testimonials

“I was impressed with the speed and versatility of Quad-Lock’s ICF, and my team loved working with it. There is no stripping of forms, and the basement is drywall ready, so we saved time. The ease of construction and energy saving benefits to the homeowner mean I’ll look to Quad-Lock on future projects.”

AMRIT MAHARAJ - AVARAM HOMES

“We have used Quad-Lock Building Systems products since 2003 with great success, due in part to the product design. The flexibility of the Quad-Lock ICF system has allowed it to be incorporated into a wide variety of structures, from all commercial buildings that exceed 60 feet in height to single family homes. The range of designs that the system can accommodate from both a structural and aesthetic perspective is impressive. Whether it was a traditional home, an earth sheltered structure or had a modern, contemporary look to it, Quad-Lock made it easy.”

JOHN HATFIELD - ENERGYWISE SUSTAINABLE PRODUCTS (ESP)

“We chose Quad-Lock because it gave us an extremely energy efficient building envelope while providing the structural capacity we needed. Out of all the completed projects we toured, those built with Quad-Lock were noticeably quieter and maintained a more comfortable, consistent indoor temperature.”

BRIAN HEATHER - SOL TERRA DEVELOPMENTS

“This was the perfect system for a building that had to be constructed from the inside only since placing scaffolding on the adjacent properties was prohibitive. It went together quickly and easily thanks to the detailed ordering process.”

DANIEL KOHS, R.A. - SYNTHESIS ARCHITECTURE, PLLC