



InSoFast! What?



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With a show of hands, how many of you have heard about InSoFast insulating panels? Like I thought... not many. While researching 'passive' house construction methods, I came across InSoFast and immediately thought what a great new idea it was. Further research indicates they've been around for years.

The InSoFast website got me thinking about the half-dozen homes I've owned going back forty years. I can proudly say I refinished most of the basements myself. The work does not always hold fond memories because as you know, each basement has its own quirks. After my last basement project, I was hoping that I would never finish another basement... until I saw this.

What is InSoFast?

InSoFast was developed as a quick and convenient way for homeowners to insulate the interior of basement walls. The InSoFast UX 2.0 panel is two-inches-thick and rated at R-8.5.

InSoFast is a type of engineered continuous insulation that comes in 2' x 4' interlocking panels. They can be applied universally to any type of interior or exterior wall assembly in both new and retrofit construction projects. InSoFast panels are made of closed-cell expanded polystyrene (EPS). The grooved panels are made in a two-inch (R-8.5) and two-and-a-half-inch (R-10) thickness. The panels contain embedded rigid vertical "studs" that hold drywall screws to facilitate fastening the panels to walls, and to facilitate fastening siding or drywall to the panels.

Why Use InSoFast Panels?

Because a perfectly insulated wall should be easy and cost effective. The panels are designed to simplify (meaning less labor) an approach to building that exceeds today's efficiency standards in preparation for a net-zero energy future.

Ed Scherrer, founder of InSoFast LLC says, "Building science keeps on adding layers of complexity that do not always play well together. We've addressed this problem by creating a simple panel with built-in features that effortlessly coexist and last."

Ed continues, "As much as we love our products, we believe insulation is an invisible technology. It sits between the layers of a wall that people actually care about and should do its job so well they'll never have to think about it. There is a time and place for masterful craftsmanship and time consuming hard labor... just not here."

InsoFast is used for above-grade interior insulation in a 19th Century restoration. It is common for older homes to be void of insulation altogether. In fact, insulation didn't become an aspect of building codes until as late as the 1970s. These homes and buildings were structured to withstand centuries, yet many of them still suffer from R-values nearest to nothing when compared to today's standards.

InSoFast panels are designed to simplify and reduce errors among a vast array of complex construction processes that have become essential for today's standards. When faced with an ever-increasing list of requirements on the jobsite we ask, "Why work so hard?" One more thing - it's often cheaper than the alternatives, even before you factor in the substantial time and labor savings.

Continuous Insulation

At two-inch-thickness, the UX 2.0's closed-cell, injection-molded EPS foam body achieves R-8.5 insulation. The EX 2.5 is a little thicker. The extra half-inch layer covers the stud surface to eliminate any thermal bridging. The panels interlock so tightly that assembled pieces can be picked up as one unit. EPS is a non-toxic, inert insulation that maintains its R-value throughout the life of your building. Because it does not absorb moisture like open-cell types of bead board, it is rated highly for below-grade applications like basements. The EPS body is a fire-retardant material and serves as a Class III vapor barrier.

Mold-Resistant Studs

Each panel is co-molded with three high-strength polypropylene studs that align every 16-inches O.C. The anterior surfaces feature three inset markers for nailing while the posterior surfaces feature

ribbed dovetails for adhesive applications against concrete, stone, metal or brick walls.

They provide a straight, rigid surface that can support drywall attachment and exterior finishes, as well as adornments like cabinets and TVs. They are not prone to moisture damage, and do not conduct heat along a wall system.

Self-Leveling Tongue-and-Groove Interlocks

Four tightly interlocking edges along each panel form a continuous, self-flashing seal. Unlike traditional flashing tapes, the interlock creates a resilient seal that will not change shape, dry or crack over time. They eliminate the potential for thermal leaks and prevent water from reaching the face. A notched alignment system ensures the panels and studs stay aligned during installation even when cut. Inset lines demarcate the location of wiring chases.

Electrical Raceways

Each panel has built-in electrical channels running vertically and horizontally. Raceways run vertically at 16 inches on-center and horizontally at 24 inches on-center. Situated at code depth, they allow for easy push-and-pull wiring access and can even fit over pre-existing conduit.

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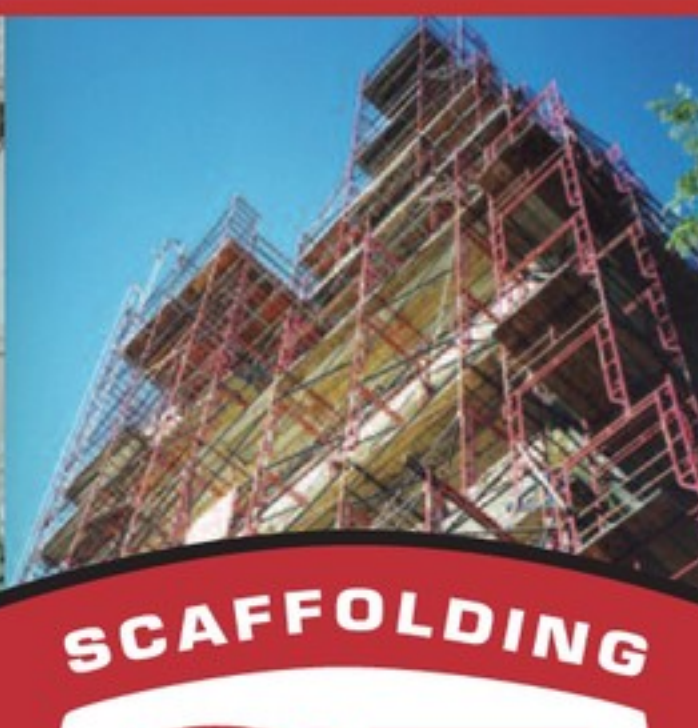
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SUSTAINABILITY

Moisture Control

The panels are made with materials that won't rot, rust, warp or decay. Integrated moisture control channels keep walls drained and dry making these an ideal solution for below-grade applications, such as basements. Built into the back of the UX panel is a network of shingle-style capillary channels. The channels are specifically-sized cavities that moderate wall pressure so that both interior and exterior wall assemblies can drain and be allowed to remain dry. The EPS foam features a permeability that ensures moisture is not trapped in walls and, with help from the channels, will "breathe" through to be handled by any standard HVAC system.

Not Just for Basements

InSoFast is now shipping a thicker panel, the InSoFast EXe 2.5 panel, designed specifically for exterior applications. EXe 2.5 is a self-flashing continuous insulation panel that simplifies building science and makes it easier to retrofit existing housing. The new product incorporates drain-and-dry technology into the front and back of the panel. This engineered feature acts as a built-in drainage mat, eliminating an entire assembly step while significantly reducing construction costs. A continuous tongue-and-groove interlock is embedded on all four sides of the panel which forms a series of capillary breaks and drainage slots. The interlocks replace the need for tape and eliminate any concern about reverse-flashing. The engineered self-flashed barrier outperforms the limited lifetime of tape.

When I viewed the 'DIY' videos on the InSoFast website, I wished I had known about this the last time I finished a basement. Their products ship factory-direct anywhere within the contiguous U.S. with free common carrier shipping. For a detailed cost analysis of a conventional 2' x 4' finished basement compared to InSoFast basement, visit the website at www.InSoFast.com. There are also a multitude of DIY InSoFast tutorial videos on YouTube. For more information contact Dean Seibert at info@InSoFast.com or call (888) 501-7899. ☺