

You may have been using or specifying many of your favorite products for years and years, but this month, we wanted to call your attention to new product enhancements and/or innovations. Many readers are not aware of changes in the insulation industry, so we asked insulation manufacturer members of NIA to share their product updates and innovations from approximately the last 18 months.* This lightly-edited compilation presents each company's sales information on their products. We cannot independently verify the research and testing done by each company, and so we present this as an educational resources and as a place you can start when you consider materials for your next job. We are aware that each project has unique design considerations, so please be sure to verify with the manufacturer that their product meets your system requirements.

Readers, we would love to hear if you find this section helpful and if you would like more sections like this in the future. Email us at publisher@insulation.org.

If you have a product enhancement or innovation, a time-saving product, or a tried and true product, we want to hear about it! Submit it for consideration by emailing us at *editor@insulation.org*.

*Disclaimer: Information included in this section is based on NIA member submissions received by Insulation Outlook. The listings in this section are free to the member and are provided for educational purposes. Inclusion in this list does not in any way indicate NIA's endorsement of a company or its products. These submissions came directly from the product manufacturers and NIA cannot verify their accuracy. Readers should always verify that any products they are considering meet the unique needs of their system and that the claims stated by the manufacturer are accurate.

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Aeroflex USA, Inc. Introduces Aerocel ULP Flexible Elastomeric Insulation

Aeroflex USA, Inc. has introduced the newest version of Aerocel® EPDM elastomeric flexible closed-cell foam insulation. This newest introduction is called Aerocel ULP® and delivers exceptional water and water vapor transport properties, offering a perme-

ance value of .005 perm-inch, and a water absorption rate of .01% by volume. Aerocel ULP has been tested using both the wet cup and dry cup methods of determining water vapor permeance detailed in ASTM E96. Aerocel ULP offers moisture resistance performance better than any vapor retarder on the market, and a perm rating far lower than all rigid plastic foams or other elastomeric insulations. Aerocel ULP is a vapor retarder, helping ensure that the insulation system remains sealed against moisture. Offering ease of installation, a high level of energy efficiency, and superior moisture resistance, Aerocel ULP is a suitable choice for cost-effective installations on all low-temperature system insulation jobs, especially in high humidity and high temperature climates.

Aerocel ULP is 38% more efficient than available materials. Less thickness of Aerocel ULP can be used while delivering the exceptional water and water vapor resistance desired for low temperature insulation systems, delivering high-level, constant, long-term insulating efficiency. Aerocel ULP does not contribute to and helps prevent corrosion under insulation, will not promote metal corrosion, and is not abrasive to system components.

Aerocel ULP is suitable for all below-ambient mechanical systems, operating as low as -320°F, including chilled water, retail food case refrigeration, industrial refrigeration applications, glycol, brine, ammonia refrigeration, industrial gases, liquid methane, liquefied natural gas (LNG), and liquid oxygen systems.

Aerocel ULP delivers excellent fire safety properties, having been rated as self-extinguishing, will not support micro-organisms, and does not contain CFCs, HFCs, and HCFCs. This newest creation is 99+% closed-cell material, provides no food source for birds or vermin, is stable over a wide range of conditions, and contributes to sustainable building practices, including LEED® and LBC®.

Aerocel ULP is available as sheets, rolls, and a wide range of diameter and thickness combinations. For more information, please visit www.aeroflexusa.com/ulp/.



Armacell Launches Next Generation Aerogel Blanket

Armacell has announced the release of ArmaGel HT, a next generation flexible aerogel blanket for high-temperature applications. It is made in South Korea on the new aerogel blanket production line within Armacell's existing Cheonan facility.

As part of the company's new ArmaGel range, ArmaGel HT is optimized for high-temperature applications up to 650°C (1200°F). With its low thermal conductivity, offering equal thermal performance at a

fraction of the thickness—up to 80% thinner than available insulation products. It will introduce new sizes of aerogel blankets to the market. 10mm thickness is available today, with 5, 15, and 20mm thicknesses available later in 2018.

ArmaGel HT offers a multitude of benefits. It is light weight for improved handling and easier transportation. For maintenance purposes, product removal is made simple, reducing both downtime and the need

to purchase replacement insulation during regular maintenance cycles. It cuts easily and conforms to preferred shapes. It is hydrophobic and breathable, thereby keeping mechanical equipment drier for longer and enhancing protection against corrosion under insulation. It also offers best-in-class acoustic performance and designed thicknesses reduced by up to 40%.

Effective insulation is a key factor in tackling climate change, as it is one of the simplest, fastest and most cost-effective means of improving energy efficiency. Our new product is environmentally safe, chloride free, and landfill disposable. In addition, it features Armacell's innovative dust-reducing technology, LoDust, making it the right fit for installers.

For more information, please visit www.armacell.com/armagel.

Armacell Announces New Wide Width AP Armaflex FS Duct Liner and Wrap

Armacell, a manufacturer of flexible mechanical insulation materials, has announced the introduction of new wider width duct liner. Armacell is now making their closed cell, fiber free AP Armaflex® FS and AP Armaflex FS SA Duct Liner and Wrap insulation in 1-1/2" thickness in wider width 56-1/4", 59", and 60" rolls. Specifiers and contractors can now meet R-6 code requirements while saving time and labor with easy-



to-install matching widths that eliminate the need to splice 48" material into longer ducts.

All of this with the same thermal performance, noise absorption, and condensation control customers have come to expect from AP Armaflex, but now in a width and thickness that provides the R-6 value needed for duct liners and wraps.

Advantages:

- New 60" width aligns with common lengths of sheet metal ducts.
- Save time with insulation rolls that perfectly match duct sizes.
- Reduce scrap and waste from cutting and piecing together undersized rolls.
- Saves energy with an R-value of 6 that is required by building codes.
- 25/50 rated, in all sizes and thicknesses.
- AP Armaflex FS and AP Armaflex FS SA Self-Adhering duct liner are available made-to-order.

Why Use Duct Liner or Wrap?

Mechanical engineers specify the AP Armaflex family of duct liners for its acoustic benefits, attenuating equipment noise that can be bothersome to building occupants. Duct wrap provides thermal protection, preventing heat loss or gain to the HVAC system and saving energy, allowing the system to work more efficiently. Wrapping ducts can also prevent condensation drip from happening on cold ducts that are installed in areas with warmer ambient temperatures.

For more information, please visit www.armacell.us.

Aspen Aerogels Introduces Pyrogel HPS

Aspen Aerogels, Inc., has announced the launch of its latest innovation in aerogel insulation technology— Pyrogel® HPS. Pyrogel HPS is a high-temperature aerogel blanket engineered to provide class-leading thermal conductivity and economic performance at service temperatures of up to 650°C (1200°F).





Pyrogel HPS is optimized for hightemperature pipe and vessel applications in the refining, chemical processing, and power generation markets. With its extremely low thermal conductivity at high temperatures, Pyrogel HPS based solutions can be up to 75% thinner than available insulation materials. As a result, Pyrogel HPS is suitable for installation in congested areas or near mechani-

cal clashes, increasing both plant safety and efficiency. Reduced insulation thicknesses also support faster and easier installation—saving time and expense.

For more information, please visit www.aerogel.com



Aspen Aerogel Launches Pyrogel XTE Pony Rolls

Aspen Aerogels, Inc., has officially launched Pyrogel® XTE Pony Rolls™. Pony Rolls are convenient 80-square-foot sized rolls of 10mm thick Pyrogel XTE aerogel blanket insulation. Pony Rolls offer all the same benefits of Pyrogel XTE in a convenient, easy-to-carry form.

Donald R. Young, President and CEO of Aspen Aerogels, said, "...Pony Rolls are essentially a 'grab-and-go' form that are easy to carry and faster to cut on the job site. Because of their smaller size, they offer our users even

greater productivity on pipe and fittings."

Pyrogel XTE can help defend against corrosion under insulation (CUI) and has demonstrated time-saving advantages in turnarounds, especially on vessels and large-bore piping.

The added convenience of Pony Rolls makes using Pyrogel XTE even more appealing for a variety of scenarios, including insulating tight spaces like pipe racks, tunnels, and vaults. Pony Rolls are also excellent to have on hand for small maintenance jobs, or for follow up after larger maintenance events.

Pyrogel XTE Pony Rolls are now available from Aspen's distribution network across the United States and Canada.

For more information, please visit www.aerogel.com.

ITW Insulation Systems Introduces TRYMER 25-50 PIR

ITW Insulation Systems has introduced TRYMER® 25-50 Polyisocyanurate Insulation with outstanding flame spread and smoke developed ratings, making it suitable for plenum areas in chilled water applications.

TRYMER 25-50 meets an ASTM E84 flame/smoke rating of ≤25/50 up to 1.5" thickness, uses no ozone-depleting blowing agents, and provides the same great k-Factor and R-value as TRYMER 2000XP.

Conveniently colored gray for easy identification on the job site, TRYMER 25-50 comes in 2 lb/ft3 density. For more information, please visit *itwinsulation.com*.

Johns Manville Announces Thermo-1200 Water-Resistant Calcium Silicate Insulation

Johns Manville Industrial Insulation Group (IIG), a global building products manufacturer and a Berkshire Hathaway company, has released a water-resistant calcium silicate in North America, called Thermo-1200™. This product will be globally available and will replace Thermo-12® Gold, Johns Manville IIG's current high-temperature calcium silicate product. Thermo-1200 offers the same thermal performance and corrosion-inhibiting properties as Thermo-12 Gold, only now it is also water-resistant.



Jack Bittner, Senior Product Manager for Johns Manville IIIG, explained that this new, water-resistant calcium silicate can be highly beneficial for contractors: "As a cementitious insulation, untreated calcium silicate can absorb water. This has historically put pressure on contractors to cover the insulation immediately after installation to protect it from any potential rainfall or moisture. This practice can have wide-reaching implications on the job site that drive up costs and reduce installation efficiency," he said.

"This is where water-resistant Thermo-1200 has enormous potential. It is engineered to give contractors a little more breathing room during the installation because water will bead on the insulation's surface, rather than soak into the insulation. This will allow contractors a little extra time to jacket the insulation during the installation process—even in moderate rainfall," Bittner said.

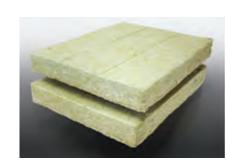
Ames Kulprathipanja, Ph.D., the Innovation Leader for Johns Manville IIG, pointed out that this is just one facet of the insulation that helps prevent corrosion. "Corrosion under insulation (CUI) is a major concern in the industrial industry. That's why our product is still made with XOX Corrosion Inhibitor". Thus, even if a small amount of water does happen to penetrate the water-resistant insulation, the corrosion inhibitors will still activate to help protect the surface of the system from corrosion," he said.

Thermo-1200 was available from the Fruita, Colorado, facility beginning in August 2017 and from the Ruston, Lousiana, facility in October 2017.

For more information, please visit www.jm.com/thermo-1200.

Johns Manville Debuts CladStone Water & Fire Block Insulation

Berkshire Hathaway's Johns Manville has announced the launch of JM CladStone™ Water & Fire Block Insulation, a noncombustible continuous insulation mineral wool product designed to provide water drainage from an exterior wall cavity system alongside thermal efficiency, fire resistance, and acoustical performance.



The CladStone Water & Fire Block is designed specifically for use in

cavity wall and rain screen applications. Its high-fiber density, low shot content mineral wool is composed of basalt, which is naturally non-combustible, moisture repellent, non-deteriorating, and mildew and corrosion proof. It can be installed with a wide variety of exterior cladding systems, including strapping, brick ties, and girts and purlins, and supports impaling pins, screws and washers, insulation fasteners, and plastic cap nails as mechanical fasteners.

For more information, please visit www.jm.com.

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K-Flex USA Introduces K-FLEX Titan

K-FLEX USA®, a manufacturer of flexible, elastomeric foam insulation, has introduced K-FLEX Titan™, the company's newest pipe insulation solution for HVAC and

refrigeration piping. Encased in a flexible, co-extruded jacketed composite material, K-FLEX Titan offers excellent flexibility, abrasion, and weather resistance, making it suitable for outdoor applications.

K-FLEX Titan performs on a broad range of metal pipes and tubing used on HVAC line sets and flex hoses while K-FLEX Titan HT is suited for use on heat pumps and solar hot water heating where higher service temperatures are expected. Its proprietary copolymer blend jacket provides protection from weather and mechanical abuse and provides exceptional UV resistance, making the insulation well-suited for extreme temperature cycling up to 300°F .

Additionally, K-FLEX Titan is an extension of, and complement to, K-FLEX USA's flexible, closed-cell foam elastomeric insulation products. Like all K-FLEX products, the expanded closed-cell structure and unique formulation inherently resists moisture vapor intrusion. Furthermore, the durable, fiber-free foam resists punctures and won't crack or flake over time.

K-FLEX Titan is available in .5-inch, .75-inch and 1-inch wall thickness, 6-foot length tube form, and is made in K-FLEX USA's ISO 9001 certified manufacturing facility in North Carolina.

For more information, please visit www.kflextitan.com.



Knauf Insulation Releases New JetSpray Thermal Insulation System

Knauf Insulation is giving contractors and builders a simple way to install complete acoustical and thermal comfort in any wall cavity with the introduction of JetSpray[™] Thermal Insulation System, a high-performance, spray-on glass mineral wool.



Utilizing the company's stabilized fiber technology, JetSpray can be applied in a net-less, side-wall application—creating a custom insulation solution for projects ranging from residential and multi-family dwellings to modular or light commercial structures. It installs easily around wiring and other wall obstructions, eliminating gaps to fill cavities completely while preventing settling. Excess material is scrubbed during installation, vacuumed, and reused—maximizing every bag of insulation and saving contractors and builders resources and money.

Typically, JetSpray dries within 24 hours and drywall can be installed the next day, eliminating impacts to the production schedule.

Because it is a spray-on insulation, JetSpray makes Grade 1 installations quick and easy to achieve. It is installed by authorized contractors who are field trained by Knauf Insulation to ensure the highest levels of performance. Knauf's manufacturing process takes the guesswork out of mixing binder chemicals onsite by incorporating calculated amounts of a water-activated adhesive into the JetSpray fibers—allowing installers to focus on a hassle-free and efficient installation. And to help installers achieve accurate density, the Knauf Insulation mobile app offers fiber flow tests and water flow test calculators for easy adjustment.

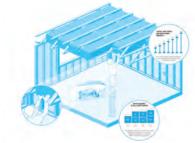
JetSpray provides thermal and acoustic comfort and efficiency for occupants, with R-values of R-15 when installed in a 2x4 wall cavity, and R-23 in a 2x6 cavity. Adding JetSpray to wall cavities can also reduce sound transmission up to 5 STC points. Additionally, JetSpray's glass fibers are innately mold-resistant and do not support microbial growth, contributing to a healthy indoor environment.

For even greater efficiency and comfort, Knauf recommends installing JetSpray in cavities that have been sealed with ECOSEAL Plus®, a water-based elastomeric sealant that forms a continuous air barrier for joints, seams, and gaskets.

For more information, please visit *jetspray.knaufinsulation.us*.

Knauf Insulation Releases New Inner-Safe Concealed Space Batt

Knauf Insulation is giving architects, specifiers, and insulation contractors a alternative to sprinkler systems in multifamily interstitial spaces with the introduction of Inner-Safe® Concealed Space Batt Insulation—safeguarding residents and property while meeting building codes for multifamily applications.



Inner-Safe is a new, non-combustible glass mineral wool batt insulation that exceeds National Fire Protection Association (NFPA) 13 Standard requirements. It can be installed in typical I-Joist and Open Web joist types found in multifamily projects, and is available for cavity depths from 8 inches to 24 inches.

"Installing a sprinkler system as the primary fire stop in between floors can add thousands of dollars to a project, and building owners will be left holding the tab for inevitable maintenance, inspection, and repair costs," said Shawn Dunahue, Marketing Director, Residential, Knauf Insulation. "This new product helps the project team eliminate much of this expense while maintaining fire protection throughout the building."



In the past, code has required that interstitial space—the area between regular-use floors—have sprinklers to reduce the threat of fire spreading. But as multi-story buildings rise higher, so does the cost and hours required to install sprinklers. Recent updates to NFPA code stipulate that concealed spaces filled with non-combustible insulation do not require sprinkler protection (NFPA 13, SECTION 8.15.1.2.7). Inner-Safe is specifically engineered to be a faster, easier, and more cost-effective way to meet these standards.

Compared to sprinkler systems, Inner-Safe is easier to install, and because it requires no long-term maintenance, it can eliminate callbacks and long-term costs. Inner-Safe cuts installed costs of traditional systems in half and eliminates

impacts to the production schedule while delivering a high-performance system and ultimate peace of mind. For more information, please visit http://innersafe.knaufinsulation.us/product-information/.

Lewco Specialty Products, Inc. Releases Super Mat: a Hydrophobic Insulation Blanket

Lewco Specialty Products, Inc. has released Super Mat, a new PTFE impregnated high temperature, hydrophobic insulation blanket to address CUI issues. It will be available in the third quarter of 2018 in sizes ranging from ¼"–1.0" thick, 72" width, rolls and sheets, and with or without silicone top-coated weather barriers. Characteristics of the product include:

- High temperature to 1200°F and 1800°F
- Hydrophobic to ASTM C 1511 & C 1753—600°F continuous
- No dust or loose fiber
- Non-burnable
- No smoke to 700°F. ASTM E 84 (Smoke—0, Flame Spread—0)
- K value—0.24 btu/sq. ft./degree F. at 100°F
- Easy to cut or die cut
- Moldable
- Strong, durable, flexible
- · Removable and reusable

Trial samples are available, contact Lewis Dill at 225-924-3221 for more information.



Owens Corning Introduces Formaldehyde-Free Thermafiber Mineral Wool Insulation in North America

Owens Corning has introduced formaldehyde-free Thermafiber® light density mineral wool insulation solutions. As a formaldehyde-free mineral wool insulation, Thermafiber mineral wool insulation solutions represent a breakthrough for architects, specifiers, and contractors interested in achieving green building standards.

Thermafiber SAFB[™] (Sound Attenuation Fire Blanket) is available



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To learn more visit OwensCorning.com/fiberglas-pipe

1. ASJ Max Jacket does not support mold growth when tested in accordance with ASTM C1338.
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now. Thermafiber UltraBatt[™] was also released as part of a series of formaldehyde-free Thermafiber mineral wool insulation solutions offered by Owens Corning.

Based upon their fire resistance and performance properties, Thermafiber mineral wool insulation products have been installed in 8 of the 20 tallest buildings in the world, including the record-breaking Burj Khalifa tower in Dubai, U.A.E. In addition to the new formaldehyde-free offerings, Thermafiber® mineral wool insulation also contributes to credits in green building programs and has a minimum 70% recycled content.

For more information, please visit www.owenscorning.com/formaldehyde-free.

Polyguard Launches Airlok STPE Technology into Air Barrier Market

Polyguard Products' Architectural Division recently launched a new line of Airlok® STPE fluid-applied air barriers to support its already robust line of Air Barriers on the market.

The permeable Airlok STPE WRB products utilize Silyl Terminated Polyether chemistry and includes:

- 1. Airlok STPE Spray Barrier—a sprayable, high performance coating providing extended service life in wall cavities. For use on masonry cavities, and poured and pre-cast walls. Can be applied to almost any substrate.
- 2. Airlok STPE Flash-N-Roll—a rollable, high performance coating air barrier and/or flashing material. This combines the best of silicone and polyurethane properties. Applications include rough openings and other above-grade flashings.
- 3. Airlok STPE Gun-N-Spread—a sausage-gun fluid-applied flashing used to create a weather resistant, fully adhered waterproof barrier system around rough openings. Used on window openings and applied with a putty knife.
- 4. Airlok STPE Detail-N-Joint—a sausage-gun fluid-applied, fiber-reinforced joint filler and transition flashing material that combines the best of silicone and polyurethane properties. Typical applications include detailing the rough opening, penetrations, above-grade flashings, and transition joints.

Polyguard's STPE products recently passed NFPA 285 test protocols.

For more information, please visit www.polyguardproducts.com.



Polyguard Unrolls Latest Innovation: RD-6 UVO Overcoat

Polyguard Products has announced the introduction of RD-6 $^{\circ}$ UVO overcoat. This is a single-component, low-VOC UV resistant, waterbased liquid coating that is highly resistant to the damaging effects of harmful UV light rays.

This new overcoat is used to protect Polyguard's highly effective and popular RD-6 anti-corrosion coating from UV rays when it's used for above-ground pipeline field joint girth welds, valves, fittings, and FBE-coated pipe. Polyguard conducted in-depth research and saw that direct exposure to sunlight could result in degradation of the RD-6 product. The result was adding this new product to ensure maximum stability.

This is an environmentally friendly, moisture-resistant product that has excellent adhesion characteristics resulting in fast touch, drying, and cure times. Although designed for RD-6, the RD-6 UVO overcoat can be applied over multiple coating types such as FBE or other epoxies.

For more information, please visit www.polyguardproducts.com.

Unifrax Launches Next-Generation Insulfrax LTX Products

Unifrax I LLC has unveiled its next-generation Insulfrax® LTX Products with enhanced physical properties to improve both thermal performance and product handling. These lightweight needled blankets combine innovative proprietary technology with Insulfrax proven performance to create the best low-biopersistent Insulfrax blanket available from Unifrax today. Insulfrax LTX blankets outperform both Insulfrax LT and S blankets in a variety of thermal management industrial applications.



The new Insulfrax LTX products help customers reduce costs. The enhanced LTX fiber performance helps companies reduce their energy costs and meet increasingly strict carbon emission targets, without increasing the amount of insulation required. Alternatively, customers can save on material costs by using less insulation to achieve the same performance as standard AES blankets. Customers can save money by reducing their lining thickness up to 25%, freeing up valuable space in furnaces and ovens.

Insulfrax LTX Blankets are inorganic and binder free with less dust and have a noticeable improved surface finish. The blanket is easier to handle and cut resulting in faster installation with less skin irritation and reduced waste of material. The blankets are also printed for easier identification of material and installation tracking on the job.

"Unifrax is very excited to launch this next level of quality to our customers using Insulfrax blankets. This new product has been designed to offer significantly lower thermal conductivity than our current Insulfrax S blanket product..." explained Phillip Armstrong, Product Manager at Unifrax Rainford in the UK.

Insulfrax LTX blankets are manufactured and available today throughout Europe, with a limited availability in the United States. The new Insulfrax LTX products will be widely available in the United States beginning in July 2018. For more information, please visit www.unifrax.com/products/blankets/insulfrax-ltx-blanket/. \bullet





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