

News Release

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BASF at K 2019 – Super-Slim High-Performance Insulation Creates Extra Space in Construction and Transportation

- **SLENTEX®: Non-combustible and flexible insulation mat**
- **SLENTITE®: Slim and heavy-duty insulation panel**

BASF is showing its innovative, super-slim high-performance insulation materials in new applications at the world's largest plastics trade show in Düsseldorf from October 16-23, 2019. The innovative high-performance products SLENTITE® and SLENTEX® are a new generation of energy-efficient aerogel-based insulation materials with outstanding material properties. BASF is presenting new examples of applications in carbon concrete facade elements and motorhomes.

Slim concrete facades for residential buildings with SLENTITE® and SLENTEX®

The use of new materials in combination with renewable energies is the secret of success for the housing of the future. In a pilot project in Leipzig, a house is being built with a hybrid load-bearing structure of carbon concrete and reinforced concrete. To achieve particularly slim wall construction, the new SLENTITE® and SLENTEX® high-performance materials can be used to create an insulating layer between the layers of concrete, reducing the wall thickness by up to 50 percent over conventional insulation materials. Slimming down the exterior wall significantly facilitates not only new aesthetic approaches, but also a gain in space, which is becoming increasingly

precious in inner-city building. In addition, the two high-performance insulation materials can be integrated in the automated precasting of the elements in the concrete plant without further system adjustments. This is a feature offered solely by these high-performance insulants, as confirmed by Alexander Kahnt, chief architect and research associate at Leipzig University of Applied Sciences (HTWK): “Owing to their outstanding insulation performance, SLENTITE® and SLENTEX® are ideal for the production of slim precast element walls.” With the flexible SLENTEX® insulation mat, even organically shaped wall elements can be produced, opening up totally new scope for aesthetics in construction.

High-performance insulation in the automotive sector

Owing to their outstanding product properties, SLENTITE® and SLENTEX® are ideal for areas where conventional insulation materials are unsuitable. Saving space is a key criterion for motorhomes, caravans and in the transport industry. The prototypical motorhome, which is being fabricated for K 2019 in cooperation between a well-known recreational vehicle and motorhome manufacturer and BASF, shows how the slim insulation materials help to create valuable space for interior use. Another milestone in the implementation of energy-efficiency strategies and a new field of application for SLENTITE® and SLENTEX®.

SLENTITE® – the slim panel for all climates

SLENTITE® is the first purely polyurethane-based aerogel ever to be produced. The heavy-duty aerogel insulation panel, which consists of around 90 percent air and is breathable, permits insulation up to 50 percent slimmer than conventional materials – for maximum efficiency combined with high aesthetics. As a pioneering high-performance insulation material, SLENTITE®’s open-porous structure creates a pleasant indoor climate and helps to cut energy costs. Its outstanding insulating performance ($\lambda = 18 \text{ mW/m} \cdot \text{K}$) is also coupled with excellent processing qualities. The clean, dust-free panels can be easily cut to size on site and applied directly to walls or coated beforehand. “Thanks to this unparalleled combination of product properties, SLENTITE® enables space-saving insulation solutions in both the construction and transportation sectors,” explains Dr. Marc Fricke, Project Manager and Marketing High-Performance Insulation at BASF.

SLENTEX® – flexible and efficient insulation

SLENTEX® is an easy-to-process and non-combustible material based entirely on mineral raw materials. As a single-layer, flexible mat, it is now available for a variety of applications in the construction and modernization sectors.

SLENTEX® is a highly efficient and extra-slim insulation mat. With a λ_D value of 19 mW/m • K, the material achieves much lower thermal conductivity than conventional mineral insulation materials and permits the construction of very slim wall structures. Beneficially, the material is non-combustible, has an A2-s1, d0 fire class, and is ETA-certified. SLENTEX® permits the diffusion of water vapor ($\mu \sim 5$) while also being hydrophobic, thus making it ideal for facade applications. “Thanks to its flexibility, the insulation material adapts very well to both flat and curved building geometries and meets the highest energy requirements that a non-combustible insulation material can offer,” says Dr. Wibke Lölsberg, Project Management and Marketing High-Performance Insulation Materials at BASF.

www.slentite.com

www.slentex.com

www.corpus-magazine.com

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BASF's Performance Materials division encompasses the entire materials knowhow of BASF regarding innovative, customized plastics under one roof. Globally active in four major industry sectors – transportation, construction, industrial applications and consumer goods – the division has a strong portfolio of products and services combined with a deep understanding of application-oriented system solutions. Key drivers of profitability and growth are our close collaboration with customers and a clear focus on solutions. Strong capabilities in R&D provide the basis to develop innovative products and applications. In 2018, the Performance Materials division achieved global sales of €7.65 bn.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 122,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of around €63 billion in 2018. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at www.basf.com.