



## GREENGUARD Indoor Air Quality Certified Insulation: Enveloping Healthier Interiors



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- Scott Miller, Director of Sustainability

It was the turn of the 21st century. The sustainable building movement was just beginning to garner national attention, and indoor air quality (IAQ) was becoming increasingly important to builders and end-users. Knauf Insulation, a U.S. commercial and residential insulation manufacturer, saw an opportunity to make a real difference in the marketplace and differentiate itself from competitors in the industry. How? By assessing its products' impact on IAQ and human health by pursuing GREENGUARD Indoor Air Quality Certification.

"GREENGUARD Indoor Air Quality Certification lets the decision makers involved in the process of selecting building materials know that Knauf Insulation has an understanding of IAQ issues and very much cares about the performance of their products in the field," says Scott Miller, the company's director of sustainability. "This was the area where we first truly demonstrated leadership within our industry—and we have not looked back."

## Taking the Initiative

In 2001, the same year the GREENGUARD Environmental Institute (GEI) launched, Knauf made the groundbreaking decision to assess its products' indoor environmental performance and begin the indoor air quality certification process. This included voluntarily submitting the company's insulation for rigorous air chamber testing and data analysis, and subsequently altering the insulation's chemical composition to achieve low emission levels—not just of formaldehyde, but also of all other potential indoor air pollutants.

"The rigor of the GREENGUARD Indoor Air Quality Certification process and full speciation of all chemical emissions has made us much more



aware of the impacts that our decision-making can have in the product development phase," Miller says. "It has become a primary component of our product design. This led to significant advances in our development process."

## The Process

At every step, GEI's staff and scientific partners provided comprehensive guidance and support to Knauf, ensuring that the company's representatives understood the testing and certification process. Within 4 months, Knauf became the first manufacturer in the

insulation industry to successfully meet GEI's chemical emissions requirements and achieve certification. This was a revolutionary accomplishment—and one that instantly set Knauf apart from other insulation manufacturers in the marketplace. In fact, when the GREENGUARD Children & Schools<sup>SM</sup> Certification launched in 2005 to meet the IAQ needs of more sensitive indoor environments, Knauf wasted no time getting its products certified to this especially rigorous standard.

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— Christin Kappel, Director of Sustainability,  
The Architecture Studio, Inc.

But Knauf didn't stop there. Armed with a newfound awareness of product off-gassing and its impact on IAQ—and determined to continue creating healthier product for its customers—Knauf altogether eliminated the phenol and formaldehyde binder in its insulation. Instead, the company developed a plant-derived alternative called ECOSE<sup>TM</sup> Technology, which—as the GREENGUARD Indoor Air Quality Certification process proved—reduced the insulation's chemical emissions even more dramatically.

"The knowledge and understanding under the rigorous protocol of the GREENGUARD auditing process gave us direction in our more sustainable journey," says Joey Viselli, vice president of marketing at Knauf.

## The Results

GREENGUARD Indoor Air Quality Certification created value for Knauf by not only helping position the company as an industry pioneer, but also by helping

the company win lucrative sustainable project bids. Examples include Indiana-based Spicewood Garden Apartments and Plum Tree Gardens, two of the first affordable housing developments in the U.S. to achieve Leadership in Energy and Environmental Design (LEED) certification through the United States Green Building Council (USGBC). Spicewood Garden Apartments are LEED Silver certified and Plum Tree Gardens are LEED Gold certified.

"We have been building affordable LEED-certified homes for a few years and we put a high-priority on IAQ for our projects. We strive to use GREENGUARD Indoor Air Quality Certified<sup>®</sup> low-emitting materials, such as Knauf Ecobatt insulation, as a means to create healthier living environments for all residents," says Christin Kappel, director of sustainability for The Architecture Studio, Inc., which designed the Spicewood Garden Apartments and Plum Tree Gardens projects.

"The GREENGUARD Environmental Institute is the trusted resource for low-emitting materials; therefore, we know that GREENGUARD Indoor Air Quality Certified products have reached the same level of excellence we hope to achieve in our projects," says Kappel. "Sustainability is becoming a way of life, and the GREENGUARD Product Guide has become a beacon for finding the best products available to support sustainable design and living."