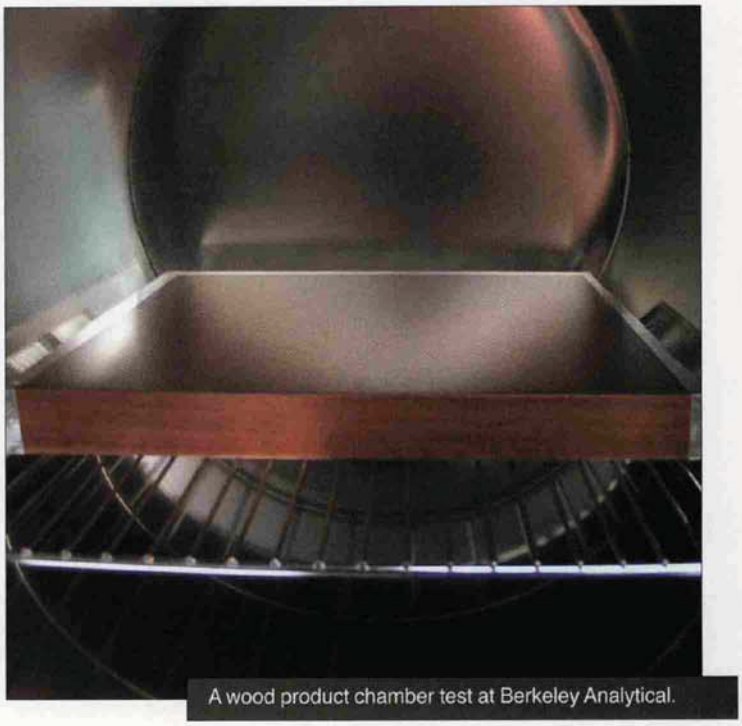
FLOOR FOCUS

Date: Monday, February 01, 2010
Location: POUND RIDGE, NY
Circulation (DMA): 15,085 (N/A)
Type (Frequency): Magazine (11Y)
Page: 54,55
Keyword: Scientific Certification Systems

A look at how environmental certifications operate in the flooring industry. ■ By Darius Helm

CERTIFICATION: HOW IT WORKS

To some, all of the green certifications out there are paving the way to a green future. To others, they can be confusing and often a bureaucratic nightmare. And to others still, they're downright treacherous territory, a mechanism for some manufacturers to confuse the layperson—with enough hot air, smoke and mirrors to melt all the ice in Greenland.



A wood product chamber test at Berkeley Analytical.

As is so often the case, the truth lies somewhere in between. But while there are certainly cases where certifications should be more transparent or administered by neutral third parties, and where competing standards blur the line between environmental and industry advocacy, more often than not the certifications and standards represent the best efforts of dedicated experts to codify and quantify the sustainable attributes of products, processes and producers.

The rationale of green programs is to create mechanisms that measure the green attributes of elements in the human environment. Demand for such information comes from end users, governments, architects and designers, and even other green programs. The key issues are what to measure, how to measure it, and how to use the information.

The list of what to measure is truly staggering and the impact of each of those elements is a science in and of itself. To truly quantify the environmental burden of a product, one has to study the impact the product has on the environment during its production, its functional life and its final dispensation. And that means scrutinizing raw materials, resource use (including water and energy) in all stages of the product's life, emissions from the product itself and from anything related to its production and end of life, and energy used in transportation of the product and anything dependent on it—to name a few.

HOW THE SYSTEM WORKS

Here's the basic structure of the world of environmental certification, at least as it relates to flooring: There are entities out there creating standards, ranging from the Carpet and Rug Institute (CRI) and the U.S. Green Building Council (USGBC) to the state of California; there are other entities like Scientific Certification Systems (SCS) whose job it is to third-party certify those various standards; and there are others whose job it is to perform the tests related to those standards, labs like Berkeley Analytical and Air Quality Sciences (AQS).

For example, SCS takes a client's carpet and certifies it to the NSF 140 Sustainable Carpet Assessment Standard (which, to add a layer of confusion, is branded SCS Sustainable Choice). Since SCS has no relationship to the client or the standard, it's a third party. Anything involving VOC testing generally goes for analysis to a fourth party, like Berkeley Analytical, an accredited VOC emissions lab, while manufacturer auditing and the like are conducted by the certifying company.

Mind you, it can get more complicated than that. For one thing, the broader standards out there, like LEED building standards, fold up within them various certifications pertaining to different parts of the building, like VOC and recycled content certifications for flooring. Those certified environmental attributes help accrue points toward LEED certification.

FLOOR FOCUS

Date: Monday, February 01, 2010
Location: POUND RIDGE, NY
Circulation (DMA): 15,085 (N/A)
Type (Frequency): Magazine (11Y)
Page: 54,55
Keyword: Scientific Certification Systems

Also, it's not uncommon for the certifier to have had a hand in the development of the certification, as is the case with SCS, which together with the Resilient Floor Covering Institute (RFCI) developed FloorScore, or CRI, which both developed and administers the Green Label Plus program. However, conflicts of interest are avoided by both certifiers having the products tested at independent labs.

Other times, the creator of the certification is also the certifier and even the tester, as is the case with McDonough Braungart Design Chemistry's Cradle to Cradle certification. To preserve objectivity, MBDC is in talks with several international certifying institutes that could possibly conduct Cradle to Cradle certification, and at least five labs have so far been approved for VOC testing, including Air Quality Sciences (AQS) and Berkeley Analytical. Greenguard's indoor air quality certification is a similar model. It was originally created as one of the businesses of AQS, which tests for Greenguard certification.

The process for developing these environmental programs is rigorous, especially for those that become recognized ANSI (American National Standards Institute) standards, like NSF 140. Heavy input from a broad range of stakeholders is key to the process, as are public reviews. Draft versions and pilot programs can take a couple of years. But even after all that, there are still often issues with the standards, so the programs must also be flexible enough to accommodate changes.

CERTIFICATION AND FLOORING

In the flooring industry, the first certifications were in response to Sick Building Syndrome, a condition coined in the 1980s to describe ailments associated with the workplace and often related to indoor air quality. Flooring, particularly, carpet, was implicated. In the early 1990s, the first certifications for indoor air quality began to emerge. The Carpet & Rug Institute's Green Label (and later, Green Label Plus) certification, Greenguard's certification and FloorScore for resilient flooring all relate to the emission of volatile organic compounds (VOCs). Adhesives are also certified through these programs.

A very different kind of program, also developed in the early 1990s, was Forest Stewardship Council (FSC) certification for wood products. It's a far reaching set of certifications, addressing directly all three prongs of sustainability (ecological, social and economic). And it accomplishes all that by virtue of the fact that it's dealing with a fairly straightforward product, wood, so it circumvents some of the most complex issues relating to raw materials, recycled content, and toxicity.

FSC certifications apply a set of straightforward ethical and environmental principles to the management of forests, including prohibiting conversion of forests, respecting human rights and international workers' rights, following all laws, and prohibiting the use of toxic chemicals. Another key element is chain-of custody certification, which tracks product all the way from the forest, through manufacturing to distribution.

In the flooring industry, FSC targets hardwood and laminate floorcoverings, and in the last couple of years several producers have come out with FSC certified products.

LIFECYCLE ASSESSMENT

Over the last decade, as the green movement has developed and the knowledge base has deepened, the need has evolved beyond single-attribute certifications to more comprehensive programs.

In terms of floorcovering, the carpet industry generally has continued to be the environmental leader. The two year old NSF 140 standard represents the first major attempt to create a certification system based on lifecycle assessment. The ANSI standard, developed by NSF International with input from a broad range of stakeholders, covers key environmental issues, including public health, energy, bio-based and recycled content, manufacturing processes and end of life management.

For resilient flooring producers, NSF 332, still in draft form, is also formulated based on lifecycle assessment. Mannington has products certified to the draft version.

For some even these standards don't go far enough, and there is interest in more far-reaching programs. For instance, SCS is working in partnership with Leonardo Academy, an ANSI accredited standards developer, in the development of an ANSI standard for a more comprehensive lifecycle assessment. It's a scalable standard that strives to unify all standards and would ideally apply to anything, and it's organized around more than 20 environmental indicators. SCS 002 has been moving through the ANSI process for over a year now, and it may take another year before the process is completed.

SCS, the leading third party certifier in the U.S., not only certifies NSF 140, FSC, and FloorScore, but also certifies recycled content and environmentally preferable products (EPP). In addition, the firm is working with the National Wood Flooring Association (NWFA), on its Responsible Procurement Program—Anderson was the first firm to achieve RPP certification, just last November. ■

LEED for Homes Update

Few people expected LEED for Homes to take off like its commercial counterparts, arriving as it did in lock step with the housing crisis. However, it turns out that it's quickly gaining acceptance. In this incredibly competitive market, LEED for Homes has provided builders with an opportunity to distinguish themselves from the competition.

Another surprise is that many of the LEED homes going up are in the affordable housing sector. It looks like homeowners and property owners are recognizing the relationship between lifecycle costs like heating and electricity and the real value of a property.

So far, 3,600 units have been LEED for Homes certified and another 20,000 or so are registered.

As part of the USGBC's mission to increase clarity, the association has developed the Green Home Guide (greenhomeguide.com) to help interested parties understand the issues involved in building a green home. The website includes an Ask A Pro section to address specific issues.

The USGBC has also come out with the ReGreen Program, which guides people through the process of sustainable remodeling.