

Green Tech Notes

Presented by USGBC-Missouri Gateway Technical Committee



Missouri
Gateway
CHAPTER

Audience: Residential
 Commercial
 Professional
 Consumer



Volume 1, Issue 2 ~ June 2012

Making Sense of Building Product Green Labels

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More and more frequently members of the building industry are finding eco-labels of environmentally sustainable certifications affixed to products that they are reviewing for selection. Rather than helping designers, building owners and contractors make decisions, the eco-labels are adding to the already existing confusion resulting from manufacturers' environmental claims. We hope that a discussion of the issues at stake will provide building professionals with the right questions to ask, allowing them to navigate this landscape. Unfortunately, as Alex Wilson of BuildingGreen, Inc. said recently while in St. Louis, "things will get more confusing before they become simplified."

An eco-label is a graphic logo verifying that a product has received second or third party certification to a material sustainability standard (MSS), which provides a set of criteria against which a product can be measured. These criteria fall into two categories: prerequisites and credits. Prerequisites are criteria that every product certified to a standard must meet. Credits are optional, in that an applicant may choose how many and which credits to achieve, depending on which level of achievement they aspire to achieve. Most American standards have both prerequisites and credits, with a few exceptions which include only prerequisites, though all are based on multiple levels of achievement. For this reason, it is very important to ask for the 'scorecard' of which points a product has achieved. If information is not available, one should generally look for Gold and Platinum certified

products. Silver and Basic level labels tend to require only minimal improvements beyond documentation, goal definition, and other assessment criteria.

Distribution of criteria, differences in nomenclature, and, at an even broader level, differences in the way criteria are credited, creates a lack of harmonization across the MSS landscape. This makes comparison between standards difficult, if not unfeasible. However, without looking at scorecards for individual products, it is still possible to discuss the current focus of material sustainability standards as a whole. Criteria are primarily focused on the categories of resource use, toxicity, energy, water, social accountability, performance, and innovation.

The majority of criteria can be grouped into two main areas: resource use and toxicity. Within resource use, shifting to 'better' content is the most common criteria, focusing on recycled content, reclaimed/reused content, and bio-based content. Within toxicity, reducing the use of substances known to harm human health and ecological health are given the most weight. These substances are most commonly limited by specific chemical name or by a 'red list' provided by governmental organizations, non-profits such as the World Health Organization, or international treaties such as the Stockholm Convention's list of Persistent Organic Pollutants. Within energy use, purchase of renewable energy and/or energy offsets is given the most weight. While some standards have a very diverse range of criteria, thereby awarding fewer points to more methods of reducing environmental

impact, many standards have heavily weighted only three of four areas, offering 50% or more of available points for this small number of methods.

A suggestion to building professionals: before speaking with a manufacturer regarding an environmental attribute of a product, consider examining relevant material sustainability standards. Though standards are laborious to read, each standard includes a summary of prerequisites and credits: these can be used as succinct table of contents. For example, a consumer interested in the Volatile Organic Compounds (VOC) emissions of a certified item of furniture may skim the criteria summary and find whether VOC emissions are limited individually, as a relative percentage with other toxins, or as a required prerequisite guaranteeing manufacturer participation. This also allows a consumer to ask specific yes or no questions that are easier for the manufacturer to answer.

When comparing one standard against another (rather than one product against another), there are several issues in particular that arise. First, there is no consistency in the way that impacts are being evaluated. Each standard has completely different weightings and number of criteria; with lower level point minimums as low as 16, higher 'platinum' point minimums as high as 90, and some standards including over 150 available points. Even when standards award the same number of points for a criterion, they may not award the same number of points for specific reductions. For example, the threshold for compliance in energy reduction, i.e. how large a reduction a manufacturer must make to achieve each point, varies from awarding 15 points for a 15% reduction in energy to 1 point for a 10% reduction in energy. As a result, without a scorecard indicating what credits and what thresholds a manufacturer has met, it is almost impossible to distinguish what improvements they have made.

Another critical area of inconsistency is in vocabulary and metrics. For example, many standards award manufacturers for the use of rapidly renewable material content in their products. However, the materials included in this definition: "A resource capable of being replaced in less than 3 years by natural ecological cycles including natural fibers, bio-based polymers, and regenerated bamboo but not including regenerated cellulose fibers such as

acetate, triacetate, cuprammonium rayon, viscose rayon, and lyocell" vary greatly from those included in this more accommodating definition: "Material considered to be an agricultural product, both fiber and animal, that takes 10 years or less to grow or raise, and to harvest in an ongoing and sustainable fashion." Cork flooring, for example, would not be considered rapidly renewable by the former definition, but would be by the latter. Therefore, it is crucial to understand what definitions are being used to measure comparative products in order to rank sustainability or use the information for LEED projects and other specific applications.

Environmentally sustainable standards today lack some rigor by failing to require specific thresholds of compliance even while many criteria focus on disclosure of existing conditions, strategies for improvement, or relative change from an established baseline. This also leads to inconsistency of stringency given that all products start from different baselines for improvement. In addition, the abundance of criteria focused upon inventory management and disclosure to the certification body seems surprising, particularly in well-established environmental impact categories such as energy reduction. Within more recently established categories, such as water use, the large percentage devoted to disclosure may indicate that methods of evaluating criteria have not yet been established.

Our goal is to provide an overview of the environmentally sustainable eco-labels in the marketplace today. The landscape of eco-labels is not ready for consolidation; therefore, building professionals and manufacturers will be juggling conflicting and overlapping labels for some years to come. We hope to provide professionals instead with questions to ask in order to make informed decisions concerning product choices, knowing that each educated question will help define the criteria and standards of the future.

Tech Notes is a project of the USGBC-Missouri Gateway Chapter Technical Committee, produced on a quarterly basis and archived on the Chapter's website in the Technical Resource Network. Want to author a Tech Note? Or suggest a topic? Contact the Technical Committee at usgbc.mq.tech@gmail.com.