

# Transparency Critical for Green Purchasing

## Life Cycle Assessment is Impact Computing Tool

By Mike Sawchuk

**LIFE CYCLE ASSESSMENTS** (LCAs) and environmental product declarations (EPDs) are emerging tools to allow business owners and their customers to better gauge the long-term environmental performance and impact of products.

The LCA measures all of a product's environmental impact including design, development, manufacture, use and eventual disposal. The EPD is documented backup in the form of a third-party report that verifies the LCA and environmental impacts of a product.

This provides more transparency for purchasers' selections – something that is likely to be increasingly important as building owners/managers strive to meet corporate sustainability and responsibility goals and serve tenants with the same green objectives.

Life cycle assessment is also commonly called “cradle to grave,” and a growing number of product manufacturers have begun to furnish this information. It is essentially an accounting tool that computes direct and indirect environmental impacts of a product, some obviously related to materials and resources that make up the product itself, but many that are incidental to production processes, shipping, marketing and retailing. There are also disposal impacts, either for packaging and empty containers or for obsolete equipment, furnishings etc. at the end of its serviceable life.

Taking the example of carpet, there are scores of items that go into its making that can have both short-term and long-term environmental impacts. Some of the notable resources and processes include:

- Water
- Petroleum and petroleum byproducts are the key raw materials in nylon broadloom carpet, which is the most common type of carpeting in residential and commercial facilities
- Synthetic fibres from a variety of sources
- Chemicals and glues, often made from petroleum by-products
- Energy to make the carpet, deliver materials to the manufacturing site and transport the carpet to distributors and end customers
- Landfill space and/or other energy for other disposal options

LCAs would allow property owners/managers and other prospective purchasers to compare the petroleum content and/or other environmental spinoff factors of various carpet choices. Some third party eco-labeling organizations, such as Canada's EcoLogo, now use LCAs to assess products seeking green certification.

EPDs are less common, but many sustainability proponents see this independent documentation as more credible than an LCA statement from product manufacturers. The EPD verifies and summarizes the life cycle assessment and typically provides more background information. In the future, industry analysts foresee the documentation will take a standardized form somewhat analogous to the nutrition labels found on food items.

The EPD will highlight relevant environmental information, but it is not a ranking of products within the category. Just as with food labels, end customers will have to read the labels and make their own comparisons and determinations.

In the United States, the Department of Agriculture's Bio-Preferred Program offers another possible measuring stick. The program certifies products that meet benchmarks for renewable resource content, which must be verified by an independent laboratory. This supports a goal to divert petroleum-based ingredients from the manufacturing chain, and the U.S. government has signalled its own intention to purchase Bio-preferred products where available and appropriate.

Clearly, cost and performance will always be factored into purchasers' decisions, but green products have been closing the gap on both those fronts from the early days of their introduction when they were largely seen as high priced and less effective than conventional products. Much has changed since the 1970s when many such products first entered the market. ■■

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