

Going Green: Where to Find Green Product Information

Adapted from *The Architect's Handbook of Professional Practice Update 2005*, originally contributed by John A. Boecker, AIA, LEED AP

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SUMMARY

John Boecker, AIA, LEED AP, recommends Web sites that offer green products. He also predicts that future LEED accreditation will require lifecycle assessment (LCA) to determine the validity of products used and recommends two LCA software producers.

GREEN MATERIAL AND PRODUCT INFO

The U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED®) Green Building Rating System™ provides a nationally used benchmark for design, construction, and operation of high-performance buildings. LEED certification of a building requires use of materials and products that contribute to meeting LEED-credit performance thresholds. Credits are based on strategies that encourage the use of materials and products that may be salvaged, are locally manufactured and harvested (within 500 miles of site), come from rapidly renewable resources, include recycled content, and have low concentrations of volatile organic compounds (VOCs).

Manufacturer's product literature can help verify performance data, but architects must be aware that LEED criteria call for substantiation of marketing claims. Several online resources, including the following, can help identify potential green products and their characteristics:

- **GreenSpec** lists nearly 2,000 green building products, searchable by spec section, product type, and LEED credits. It has been developed by the publishers of *Environmental Building News* (www.buildinggreen.com).
- **Green Seal** identifies environmentally preferred building-related products at www.greenseal.org.
- **Oikos** is a searchable database of green building products by spec division or product category (www.oikos.com).

THE NEXT STEP IN DETERMINING MATERIALS

As the LEED program evolves, obtaining credits for building materials and products is likely to require the use of LCA methodologies that analyze and quantify the environmental impacts associated with materials over their entire life cycle, from resource extraction and acquisition to manufacturing, transportation, installation, use, and eventual disposal or end-of-life reuse. LCA tools quantify cradle-to-grave environmental performance by considering environmental emissions, water pollutants, human toxicity, and solid waste production. The extraordinary complexity of LCA databases has slowed their development, but useful tools have begun to emerge, including these currently available online resources:

- **BEES** (Building for Environmental and Economic Sustainability) software developed by the National Institute of Standards and Technology (NIST) uses the ISO 14000 LCA approach to evaluate primarily interior materials. It is available at no charge at www.bfrl.nist.gov/oa/software/bees.html.
- The **ATHENA**® environmental impact estimator, developed by the Athena Institute, is available at www.athenasmi.ca.

ADDITIONAL RESOURCES

The LEED Green Building Rating System is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. It can be downloaded at no cost from the USGBC Web site at www.usgbc.org.

ABOUT THE CONTRIBUTOR

John Boecker, AIA, LEED AP, is a partner in the green building and LEED consulting firm 7Group and also serves as director of high-performance green design for L. Robert Kimball and Associates Architects and Engineers. A LEED accredited professional, he serves on the USGBC LEED Steering Committee.

RESOURCES

More Best Practices

The following AIA Best Practices provide additional information related to this topic:

- 18.11.09 Steps toward LEED Certification
- 18.11.10 Energy Modeling and Daylighting Analysis
- 18.11.07 Differences in Environmentally Preferable Products

FOR MORE INFORMATION

See also “Energy Analysis and Design” by Donald Prowler, FAIA, *The Architect’s Handbook of Professional Practice*, 13th edition, Chapter 18, p. 616. The *Handbook* can be ordered from the AIA Store by calling 800-242-3837 (option 4) or by sending e-mail to bookstore@aia.org.



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- Product development