



Sustainable Building

What Are Green Building Products and Where Do I Find Them?

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This Tech Tip, the second of a series, explores the growing field of “green” building products and the databases and listings that will help you find them. This series of sustainable building Tech Tips will form a sustainable building resource guide for the Forest Service. The guide will provide a ready reference to sustainable products and practices, and other information for facility managers, designers, and contractors.

Beyond Recycling to Sustainable Building Products

Sustainability means meeting the needs of present generations without compromising the ability of future generations to meet their own needs. In this series' first Tech Tip, the emphasis was on recycling building materials *after* they had been used. Recycling reduces the impacts of raw material extraction, an issue central to the Forest Service mission. This Tech Tip emphasizes the *initial* use of recycled and environmentally friendlier, less toxic products. Using these types of products helps to change resource consumption from a linear process (use to waste) to a

cyclical process (use to recycle to reuse). It also reduces the environmental impacts of the manufacture and use of many building products.

What exactly are “greener” building products? Generally, “green” building products meet at least one of the three main goals of sustainable building:

- Efficient use of all resources (energy, water, materials, and land) and minimization of waste
- Conservation of the natural environment, the source of all our resources
- Creation of a healthy built environment for existing and future generations.

(Adapted from *Greening Federal Facilities: An Energy, Environmental, and Economic Resource Guide for Federal Facility Managers*, U.S. Department of Energy, Federal Energy Management Program 1997)

It might appear difficult to “go green” because green products can be difficult to find. However, green products are more readily available now, and there is a growing movement to use greener building materials. A number of Federal policies require purchasing and using environmentally

friendlier products and materials. These policies include:

- Energy Policy Act of 1992
- Executive Order 12902—Energy Efficiency and Water Conservation at Federal Facilities (March 1994)
- 10 CFR Parts 435 and 436—Energy Conservation
- Executive Order 12873—Federal Acquisition Recycling and Waste Prevention (October 1993)
- Resource Conservation and Recovery Act (1976).

Last year, the Environmental Protection Agency (EPA) and the Office of the Federal Environmental Executive sponsored a symposium to discuss how Federal purchasing could become environmentally friendlier. The Federal Acquisition Regulations are being revised to reflect the requirements of policies for environmentally friendlier purchasing.

Where Do I Find Greener Building Products?

As a Forest Service Designer, Engineer, or Facilities Manager, you may want to use more sustainable products while meeting



the requirements of green policies. But where do you find these greener products? What exactly does “green” mean?

There are many databases and guides that can help you locate “greener” building products and materials.

There is no one right answer to the greenness of certain products. Some products are clearly greener than their conventional counterparts because they are nontoxic, contain recycled materials, are extremely durable, conserve energy and resources,

are manufactured in an environmentally friendlier way, or can be taken apart and reused. Products that embody one or several of these characteristics are listed in these guides.

There are no standards for labeling environmentally benign or more sustainable products. However, Green Seal (www.greenseal.org) has certified a limited number of products. Scientific Certification Systems (www.scs1.com) also certifies products. These groups might offer insight into product comparisons. There is no one right answer to being green. Guides and

lists do not include all the environmentally friendly products available. They do serve as a starting point for learning about products and comparing them. Like any other selection of a building product, selecting a green product requires good judgment. Only you know the circumstances in which the product will be used.

Table 1 describes several product databases and listings. Each reference includes a short description of the database, or listing, and some general comments about each entry.

Table 1—Product databases and listings.The American Institute of Architects is abbreviated with the acronym, AIA.

Title	Order Information	Organization of Document	Comments/Notes
<i>GreenSpec</i> (1996)	Kalin Associates http://www.spec-net.com \$125.00	By Construction Specification Institute (CSI) number, available hardcopy and on disk. Each product is described by environmental considerations. Three-ring binder.	Includes sample specifications for each product. Concentrates on products available in the New Jersey area, but the specification language is helpful elsewhere. Recognizes product characteristics such as toxicity and recyclability.
<i>Environmental Building News Product Catalog</i>	Environmental Building News (EBN) http://www.ebuild.com \$89.00	Listing by type of product and CSI format. (lighting, plumbing, flooring, etc.). Three-ring binder.	Considered the leading newsletter on environmentally sustainable design and construction. EBN has written reviews on many products in the catalog.
<i>Environmental Resource Guide</i>	American Institute of Architects (AIA) http://es.epa.gov/new/business/aia/aiaindex.html \$165.00	CSI format includes specific project application and product reports.	While not referencing specific manufacturers, products are described according to waste generation, energy consumption, resource depletion, and indoor air quality.
<i>National Park Service Product Database</i>	National Park Service http://www.nps.gov/dsc/dsgncnstr/toolbox.html \$25.00 or download free	CSI format/searchable database.	Over 1,300 products listed with contact information described by resource impacts. Also includes a listing of construction debris recyclers and other sustainable information sources.
<i>Resource Efficient Directory (REDI)</i>	Iris Communications, Inc. http://okios.com	Web searchable by CSI category, topic, or company. Links to other web sites and information sources.	Products are listed with type of company and environmental benefit. Links to manufacturers and suppliers are helpful. Broad listing.

Title	Order Information	Organization of Document	Comments/Notes
<i>Guide to Resource Efficient Building Elements</i>	Center for Resourceful Building Technology http://montana.com/crbt \$28.00 order online	By building parts from foundations to floor coverings.	Each selection discusses resource efficiency and provides comprehensive descriptions of applicable products. Includes contact information.
<i>Green Building Resource Guide</i>	John Hermansson, AIA. Tauton Press, 1997. Free access on the web or available in hardcopy for about \$40. http://www.greenguide.com	By construction division number, but also has indexes of product type and manufacturers.	Each product description is listed with manufacturer contact information and icon symbols designating characteristics of nontoxicity, recycled content, resource efficiency, long life cycle, or environmentally conscious manufacturing. A price index number comparing the greener product with a more conventional product make this guide unique.
<i>McRecycle</i>	McDonald's http://www.mcdonalds.com/community/envirom/info/form/index.html		Not reviewed.
<i>Sustainable Design Resource Guide</i>	Denver AIA Bookstore Phone: (303) 446-2266 \$29.95	By CSI category, mainly suppliers. AIA may have other regional guides.	General discussion at beginning of each section. Products have description and contact information. Products are noted for their resource efficiency in 12 categories from recycled content to durability.
<i>Environmental Products Guide - General Services Administration (GSA)</i>	GSA http://pub.fss.gsa.gov Phone: (800) 848-8952	Catalog	Published by GSA and EPA, this guide is not specific to construction and building products, but does include items such as lighting, insulation, paint, HVAC systems, and solar products.
<i>Jade Mountain Appropriate Technology</i>	Jade Mountain http://www.jademountain.com Phone: (800) 442-1972 Box 4616 Boulder, CO 80306-4616	Catalog	Jade Mountain is not really a database or a guide. The company's catalog is a good source for sustainable technologies affecting energy and water. A technical staff is available to answer questions.
<i>Real Goods</i>	Real Goods http://www.realgoods.com Phone: (800) 508-2342 555 Leslie Street Ukiah, CA 95482-5576	Catalog	Like Jade Mountain, Real Goods is a company that specializes in environmentally friendly products. Although Real Goods does not offer as many building products as Jade Mountain, it is a good source for technologies affecting energy and water resources. A technical staff is available to answer questions.

Information on green building products is growing rapidly. Many conferences on green building are also offering trade shows and product forums. This listing is not meant to be all inclusive, but represents some of the mainstream information sources. If you are using other product listings that you have found to be particularly helpful, please contact Anna Jones-Crabtree.

How to Integrate Green Products Into Your Projects!

- **Use at least three greener options for each project**—It used to be difficult to find greener options for building products. The building industry is now requesting more sustainable products and materials. As we require greener products, the market will produce more products that use recycled materials, conserve resources, and are nontoxic. Remember, greener options do not have to cost more. Often they are less expensive than conventional products when all costs are considered during their life cycle.
- **Make your customers aware that you are using green products**—Imagine if only 10% of the 40 million recreation visitors to national forests better

understood the resources used by the built environment and how they could be more wisely used. Remember, the more resources humans use, the more pressure placed on lands managed by the Forest Service to produce and protect those resources.

- **Report the success or failures of green products**—If a product doesn't meet your expectations, take a few minutes to follow up with the company. Most companies producing greener products realize that the consumers are generally more informed. They want feedback from their customers so they can stay competitive. Share the product's pluses and minuses with other Forest Service facility managers.

Coming next...What Are Those Sustainable Building Guides Really?

About the Authors...

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