

Environmentally Friendly Building and Remodeling Materials

Why go green? Thanks to more efficient heating and cooling, you'll enjoy lower utility bills now and higher resale values later. And who doesn't want a safer, more comfortable environment and a pain-free way to conserve natural resources?

By Kathie Kull

Earth Friendly and Resource Efficient

Once seen as extreme or eccentric, environmentally friendly living spaces are going mainstream. You don't have to strain your budget or your sense of style to choose a healthy home -- these days, it's easy being green. Here's what's new in environmentally friendly products and materials for the home.

This category encompasses materials that are recycled, sustainably harvested, or organically grown. One retro option now available again (from Forbo and Armstrong) is real linoleum -- made from biodegradable linseed oil, pine rosins, and wood flour on a jute backing.

- **Recycled products** are filling the market faster than aluminum cans at a sporting event. Look for rubber and polymer roofing that imitates slate to reduce weight and maintenance. In countertops, IceStone blends 75 percent recycled glass with concrete for durable countertops, backsplashes, shower surrounds, walls, and floors. See 20 standard colors at their Web site, www.icestone.biz.



- **Lumber choices** may seem confusing. Avoid products produced from old growth timber or endangered tropical hardwoods. Seek out certified and managed forests, recycled or reclaimed wood (salvaged from riverbeds or old buildings), or composites such as hardwood-veneered MDF (medium-density fiberboard) for doors and cabinets. An early green favorite with architects, fast-growing bamboo makes beautiful, durable flooring. Teragren sells bamboo in random lengths, wide planks, and a new "floating" (non-glued) product. Look for inspiring photographs at the Teragren Web site, www.teragren.com.
- **Outdoor products** have evolved, too. Treated lumber eliminated arsenic for less toxic preservatives. Formed from ground wood fibers and resin, composite decking and railing won't rot or need painting. CorrectDeck (www.correctdeck.com) is splinter-free and cool underfoot, and its woodgrain planks can be joined with hidden fasteners.
- **High-performance windows**, especially with low-emissivity (low-E) glazings, are among the best-known ways to save energy for heating and cooling.

- **Water-saving appliances** include Energy Star-rated dishwashers and front-loading washing machines. In the bathroom, all new toilets must use only 1.6 gallons of water per flush, but Sterling's Rockton model also has a .8-gallon-flush option, which can save a household of four up to 6,000 gallons of water per year over 1.6-gallon models. Get details at their Web site, www.sterlingplumbing.com.
- **Structural Insulated Panels** (www.sips.org) are gaining acceptance for use in walls, floors, and roofs. Panels sandwich a rigid foam core (usually expanded polystyrene) between OSB, or oriented strand board. OSB mixes wood strands made from fast-growing trees with wax and a binder to form mats. These mats are layered across each other for strength, then heat-pressed into panels that makers say save time and energy over stick-built construction.
- **Tankless water heaters** don't keep water hot in a standing tank all day long. Instead, these compact, on-demand units attach to your plumbing system and heat water as it runs through a heat exchanger. You only pay to heat water when you need it. Rinnai claims its Continuum model is 50 to 70 percent more efficient than a traditional standby heater. A digital control pad maintains and limits water temperature indefinitely. One version lets you preset showers, automatically fill tubs, and even enjoy TV and radio on a 7-inch screen. For more information, see the Web site www.foreverhotwater.com.
- **Photovoltaic panels** let you generate your own power from the sun. Tax credits and utility company rebates can help yield a five-year payback. BP Solar sells complete installed solar home power systems through more than 40 home centers in Southern California and plans to expand to Northern California, New Jersey, New York, and Hawaii. Use the solar savings estimator at www.bpsolar.com to calculate potential costs and savings based on your zip code, electric bill, and system size.

Healthful Materials

Air-tight construction addressed the energy crisis of the 1970s, but few foresaw that this approach could be harmful to your health. When building materials emit fumes and trapped air creates mold, sick building syndrome and environmentally triggered illness and allergies can result. One solution is to shop for low-emitting interior products and materials.

Started in Germany, the *Bau-biologie* movement aims to create living spaces that are both harmonious with nature and human health. Proponents recommend nontoxic building materials, natural air movement to control humidity, filtering of air pollutants, and radiant or passive solar heat.

An offshoot of Washington state and EPA programs, the GREENGUARD Environmental Institute (www.greenguard.org) certifies low-emitting interior products and materials through quarterly air-quality performance tests. When you build with these products, you can breathe easier.

- **Low- or no-VOC products.** Air-polluting volatile organic compounds (VOCs) include toxic solvents and formaldehyde. Some new fiberglass insulation is VOC-free; other lung-friendly insulation includes recycled cotton batts (containing cloth trimmings usually scrapped) and soy-based sprayed-in foam.
- **Low- or no-odor coatings.** Sherwin-Williams' zero-VOC Harmony line has virtually no odor during application and drying. Its water-base Duration Home formulas are even more stain-resistant and washable yet contain fewer VOCs than typical paints. Pick healthy paint for your project at www.sherwin-williams.com.