Guidelines for Avoiding Wood from Endangered Forests

Introduction

The world's forests are in crisis. Earth's forest ecosystems have experienced an unprecedented rate of destruction and degradation, most of which has occurred in the last 200 years.

According to the World Resources Institute (WRI), only 20% of Earth's original forests remain today in areas large enough to maintain their full complement of biological and habitat diversity and ecological functions. These "frontier" forests are: (1) dominated by native trees; (2) provide a variety of habitat types; (3) are large enough to support viable populations of native species and withstand natural disasters; and (4) have been subjected to limited human disturbance.

The remainder of Earth's native forests consist of (1) old growth forests lacking the size or continuity to maintain all of their ecological functions and biodiversity; (2) fragmented old-growth forests; (3) and second growth forests that may or may not support full natural biodiversity and ecological functions. Many of these forests are under threat of destruction or degradation from various civilized human disturbances such as conversion to agriculture, fuelwood cutting, conversion to housing, industrial development, oil and gas drilling, mining, flooding for hydroelectric dams, overhunting (such as bushmeat) or overcollection of wildlife (such as parrots), and introduction of invasive species. But repeatedly, studies have shown that logging for timber is the main factor leading to the loss or degradation of Earth's forests.

Of particular concern due to their incredible and unmatched biodiversity are primary tropical forest, especially rainforests (what scientists call closed-canopy moist forests). The total loss of tropical forests is estimated at 37 million acres per year by the United Nations, but new research indicates the amount of forest degradation due to logging and other disruptive extractive activities may be double or triple that amount. Tropical forest loss is leading to the greatest mass extinction of plants and animals that has occurred on Earth in 65 million years, estimated at over 300 species per day. The leading factor in the loss of tropical forests is unsustainable and often illegal logging for timber. Loggers bulldoze roads into pristine forests seeking high-value trees such as mahogany, ipe, virola, padauk, greenheart, ramin, apitong, wenge and others.

The world's boreal (cold region) forests are a leading depository of atmospheric carbon dioxide, the main gas causing global warming. These forests have recently come under siege. In Canada, old-growth boreal forests are being clearcut by Canadian and foreign companies for wood products markets in the US, Europe and Asia. Trees from Russia's boreal forests are now being sold to the highest bidder in an effort to raise desperately-desired cash.

Old-growth temperate forests in developed countries have largely been converted to plantations or cleared. Less than 1% of original old-growth forests remain in Europe, and less than 5% of original old-growth forests remain in the U.S. Remaining old-growth temperate

rainforests in Canada, Chile, and other areas are being rapidly logged for timber and pulp for paper.

Certain species in commercial trade are simply being overtargeted, leading to excessive demands on fragile or recovering temperate forests.

Wood products from plantation forests are offered as a solution to declining native forests by some industry and government representatives. Unfortunately, many native forests are still being eliminated in favor of new plantations with fast-growing, often non-native species such as eucalyptus and Radiata pine (this is a particular problem in tropical and coastal temperate rainforests). Also, wood products importers and retailers have learned that claims of plantation origin for woods actually originating from native forests will allay fears of ill-informed consumers. For these reasons, wood products from plantations must be evaluated on a case-by-case basis.

The demand for timber is driving unsustainable logging around the world, fueling a rate of forest loss unprecedented in Earth's history. _____ is committed to reducing its effects on the world's endangered forests by avoiding key high-demand tree species and wood from particularly threatened areas, seeking non-wood, recycled and reclaimed alternatives, and supporting the use of independently-certified wood products in construction.

Woods to Avoid

As of _____, _____ does not sell or trade woods originating from endangered forests or does not use in construction or remodeling off all its facilities woods originating from endangered forests .
"Endangered forests" are defined to include the following (additional areas may become threatened in the future and be added to future guidelines):

tropical forests (excluding plantations);

old growth or overharvested temperate forests;

old growth boreal forests.

_____ does not use woods from the above forest types unless they are reused (such as antique furniture), reclaimed (coming from non-living submerged forests, deconstructed buildings or a secondary product made from production remains), recycled (such as medium density fiberboard made from waste wood) or carry independent certification by an organization accredited by the Forest Stewardship Council*

The remainder of this document includes *examples* of key high-demand species extracted from endangered forests.

The document also includes *examples* of more environmentally sound alternative materials and their sources.

*The Forest Stewardship Council, or FSC, is an independent oversight organization based in Oaxaca, Mexico. FSC accredits independent certifiers based on peer-reviewed standards that have been accepted by most major environmental organizations.

Examples of Woods from Endangered Tropical Rainforests

(species in italics are also listed as endangered in one or more country lists)

WOOD	ORIGIN	APPEARANCE	COMMON USES
Andiroba	West Indies, C. America, Brazil	Heartwood is reddish brown.	Boat building, furniture, flooring, mill work, cabinetry and decorative plywood.
Apitong	Malaysia, Thailand, Burma, Philippines.	Light to dark reddish brown color.	Commonly used in truck flooring and structural & utility wood skids (pallets).
Balsa	Ecuador, Latin America	Pale white to pinkish color. The lightest of commercial hardwoods; very soft.	Used as insulation, sound deadener and in models.
Cedar — Spanish (Cedro)	Tropical America from s. Mexico to n. Argentina	Light red, very soft.	Boat building, outdoor furniture, exterior doors, decking, paneling, musical instruments and cigar boxes.
Cocobolo	Mexico, C. America, Columbia	Dark brown to reddish brown, with dark streaks.	Used in furniture, pipes, decorative crafts and veneers.
Cordia (Bocote)	Mexico, C. and S. America, Fiji	Heartwood is dark brown and streaky.	Turnery, expensive furniture, flooring and inlay work.
Dakua makade, salusalu (Fiji birch)	Fiji	Heartwood is pale cream to golden brown.	Furniture, veneer, plywood, paneling, picture frames, machined items, window parts, turned items. Plywood manufactured by Georgia-Pacific.
Ebony	W. Africa with related species in India and Sri Lanka	Black to black with streaks of dark brown.	Musical instruments, inlays, marquetry and small articles of turnery.
Greenheart (beeberoe)	Guyana, (British Guiana), West Indies	Heartwood varies in color from light olive green to nearly black.	Construction of ships and docks, pilings, marine uses.
Ipê (bethabara, Pau d'arco)	Mexico, Central and S. America	Heartwood is light brown to olive brown.	Truck flooring, railroad crossties, boardwalks, decking, benches, handrails, tool handles, veneers.
Iroko (African teak)	Ivory Coast, Liberia, Ghana	Pale yellowish brown to dark brown.	Joinery, furniture, marine work, veneer.
Jatoba (curbaril, jatoby)	Central and South America, West Indies.	Heartwood is salmon-red to orange-brown with dark and russet brown streaks.	Furniture, joinery, cabinets, turnery.
Jelutong	Indonesia and Malaysia	White or straw colored.	Pattern work, pencils, picture frames, drawing boards.

WOOD	ORIGIN	APPEARANCE	COMMON USES
Kapur (Borneo teak)	Southeast Asia, Sumatra, Borneo, Sarawak	Heartwood is reddish brown.	Joinery, construction, decking. Kapur is used extensively in plywood either alone or with lauan.
Lauan/ Meranti Grouping	Southeast Asia	The term lauan or "Philippine mahogany" is applied to three genera. The various species of the three genera can be categorized into 4 groups, based on heartwood color (meranti and seraya are names applied only to the genus Shorea), all have a stringy grain; 1. balau or selengan batu — light to deep red brown; 2. dark red meranti or tanguile — dark red to red brown; 3. light red meranti or bagtikan or white lauan — almost white to pale pink to dark red or pale brown to deep brown; 4. white meranti — light yellow or yellow brown. Uses: low grade furniture, fixtures, veneer, **plywood, door skins, and wall paneling,** moldings, general construction, mobile home interiors, set building, speaker cabinets. Plywood manufactured by Georgia-Pacific. The U.S.'s main tropical timber import*.	
Mahogany, African	West Africa	Heartwood varies from a pale pink to a dark reddish brown.	Decorative wood, furniture, boat construction, veneers, interior finishes.
Mahogany, American or Honduras (true)	Mexico, Central and South America (also, a few plantations in Indonesia)	Heartwood varies from pale pink to reddish brown.	Cabinets, expensive furniture, fixtures, interior trims, paneling, structural part and trimming of fine boats, veneers**.
Merbau (ipil, kwila, vesi)	Southeast Asia	Heartwood is brown or dark red brown.	Joinery, flooring, construction, furniture, turnery and musical instruments.
Nyotah (njatuh, padang)	Malaysia and S.E. Asia.	Heartwood varies by species but generally from pale pink to reddish brown, sometimes with darker streaks.	Furniture (often outdoor), cabinets, joinery, interiors.
Obeche (samba, African whitewood)	West central Africa	Creamy white to yellow.	Flooring, railroad crossties, boat construction, veneers.
Paduak (vermillion, pradu)	Africa, Thailand, Andaman Islands	Heartwood is orange to orange red.	Heavy construction, wall paneling, some furniture, decorative crafts.
Purpleheart (amaranth)	Brazilian Amazon, Mexico, C. America	Heartwood is deep purple.	Turnery, expensive furniture, specialty items, cabinet work, park benches, framing, musical instruments.
Ramin (melawis)	Malaysia, Borneo, Indonesia, Sumatra, Philippines, Fiji	One of the few moderately heavy woods "blond" woods from the region.	Furniture, moldings, plywoods, flooring, dowels, tool handles, drying racks, picture frames — stained to match veneers of more valuable species.

WOOD	ORIGIN	APPEARANCE	COMMON USES
Rosewood, Amazon	Brazil	Heartwood is golden brown with reddish purple stripes.	Veneer, furniture.
Rosewood, Brazilian	Eastern forests of Brazil to Rio de Janiero	Colors range form shades of brown to red and violet, irregularly streaked with black.	Veneer for decorative plywood, cutlery handles, picture frames, billiard cues and craft items.
Rosewood, Honduras	Honduras	Heartwood is striped with purple or brown.	Veneers.
Rosewood, Indian	Southern India, Sri Lanka	Heartwood varies from golden brown to dark purplish brown with denser black streaks.	Decorative wood for expensive furniture, cabinets, veneers, inlays, marquetry, turnery, picture frames.
Teak	Burma, Thailand, Laos, Cambodia (also plantations in Indonesia, Ecuador, Costa Rica and Africa	Heartwood is medium brown or golden brown	Flooring, ship building and decking, turnery, outdoor and indoor furniture, household items, salad bowls.
Utile (sipo)	Ivory Coast and Ghana	Heartwood is reddish brown.	Quality joinery.
Wenge (panga panga)	West Africa	Heartwood is striped dark brown to black.	Carving wood, cabinetry, expensive furniture, interior and exterior joinery, paneling, turnery, flooring.
Zebrawood (zebrano)	Nigeria, West Africa	Heartwood is pale brown with distinct dark brown stripes.	Decorative crafts, inlays, veneer, wall paneling.

* Lauan is the most commonly used tropical veneer. It is poor to medium quality wood generally used for inexpensive plywood and door skins. The tragic part: if compensation for indigenous peoples losing their homelands and the loss of biodiversity are factored in, the *real* cost of lauan is extremely high.

** The demand for true mahogany from Latin America has also caused numerous logging companies to encroach on indigenous peoples' reserves in Brazil. The forest people are endangered by log poachers who fell the trees and sell the wood to middlemen, who in turn sell it to importers from the U.S. and other industrialized countries

*** Teak from Burma and teak products from Thailand are not only environmentally-unsound, but associated with some of the worst human rights violations in the world. The market for Burmese teak and teak products helps keep one of the most brutal military regimes in power, as teak is one of the only sources of foreign exchange for the Burmese military. In order to bolster its army, the Burmese military government is rapidly selling off its teak and other natural resources because the U.S. and other nations canceled foreign aid due to the junta's 1988 massacre of thousands of pro-democracy demonstrators.

The Burmese government has also sold teak concessions to Thai logging companies, who then export the teak. Thailand has imposed a ban on logging since massive deforestation caused flooding which killed hundreds of people. So Thai loggers have moved their operations to the Burmese border, which still has large tracts of teak. This area is home to ethnic minorities who are fighting to defend their homeland. The roads built by the Thai loggers have helped the Burmese military gain access to this area.

Examples of Woods to Avoid from Endangered Temperate Rainforests

SPECIES	ORIGIN	APPEARANCE	COMMON USES
Alaskan Cedar	Coastal British Columbia and Coastal Alaska	Pale yellowish	Decking, exterior shingles, outdoor furniture, trellises, fencing,
Alerce (Iahuan, Patagonian cypress, Fitzroy cypress)	Central Chile and southern Argentina	A softwood. Heartwood brownish red, sharply demarcated from the narrow light-colored sapwood; fine texture, straight grain, resembles California redwood	Shakes and shingles, general construction, interior & exterior cladding, pencil slats, musical instruments, vats and tanks, lumber cores, and furniture components
Arucaria (Monkey Puzzle tree)	Chile, Argentina	Pale yellowish	Timber
Coigue (anis, coihue, lengue, roble, South American beech)	Chilean coast and up the river valleys into the high cordilleras	Heartwood varies from pale pinkish brown to reddish brown to bright cherry red; sapwood often wide, light brown; straight grain	Furniture components, cabinet work, flooring, millwork, cooperage, an all-purpose timber in Chile
Eucalyptus (old growth)	Australia	Yellowish blond with a pattern of lighter and darker sheen	Paneling, furniture
Jarrah	Australia	Heartwood is rich dark brownish red with even but moderately coarse texture	Marine work, shingles, flooring, furniture, tool handles, paneling, veneers
Lenga	Chile	Heartwood is orange-brown with medium grain	Flooring, veneer, molding, decking, shingles, turnery
Redwood	Coastal northwestern US	Heartwood is pale reddish orange to pale brown, sapwood is pale yellow	Decking, exterior paneling and shingles, interiors, picnic tables, outdoor furniture, trellises, fencing, window frames
Rimu (red pine)	New Zealand	Medium density softwood; seasoned heartwood is reddish-brown, sometimes yellowish-brown, straight-grained	Furniture, interior paneling, flooring, interior trim, plywood, framing, architectural veneers
Sitka Spruce	Coastal British Columbia and Coastal Alaska	White to pale yellow	Two-by-fours, plywood
Tepa	Chile	Yellowish-white wood; similar in appearance to Cypress Pine	Furniture, interior doors and ceiling, interior and exterior sheathing, packing crates, plywood & veneers, concrete forms, etc.

Ulmo (gnulgu, muermo, roble de Chile)	Chile	Heartwood reddish- or grayish-brown; texture fine and uniform; grain generally straight	Flooring, general construction, furniture, and joinery
Western Red Cedar	British Columbia, Northwest US	Light brick red to pale orange	Decking, exterior paneling and shingles, interiors, picnic tables, outdoor furniture, trellises, fencing

Examples of Woods to Avoid from Endangered Boreal Forests

SPECIES	ORIGIN	APPEARANCE	COMMON USES
Ash	Canada, Russia	Light yellow to yellow with medium grain	Furniture, flooring, veneers, paneling
Cherry	Canada, Russia	Cinnamon to light brown with very fine grain	Furniture, paneling, frames
Korean pine	Russia, west Asia	Light yellow to whitish	Construction, furniture
Spruce	Canada, Russia	Light yellow to whitish with pale grain	Construction, furniture
Walnut	Canada, Russia*	Dark brown to cocoa with fine grain	Furniture, paneling, plaques, frames
White birch	Canada, Russia	Light yellow to whitish with light grain	Flooring, veneers, paneling, furniture, plywood, doors
White oak	Canada, Russia*	Cream to yellow-white with heavy grain	Furniture, stairs, railings, paneling, trim, flooring, veneers, plywood, doors

* These woods are being used extensively by furniture manufacturers in China.

Woods to Avoid from Overharvested Temperate Forests

SPECIES	ORIGIN	APPEARANCE	COMMON USES
Cherry	US	Cinnamon to light brown with very fine grain	Furniture, paneling, frames
Pine (native)	Mexico	Pale-colored with wide grain	Furniture, construction, interior trim, packing cases and boxes, pallets, paneling

Suggested Alternatives to Woods from Endangered Forests

Below are some suggested alternatives to woods from endangered forests. There are many more. Further research can be done by contacting some of the organizations listed below or viewing their websites. A particularly useful guide is the GreenSpec Binder published by Environmental Building News (ph: 802/257-7300, http://www.buildinggreen.com/orders/gs_info.html).

USE	SUGGESTED ALTERNATIVES
	Note: All woods listed as Suggested Alternatives column are second growth — no old growth will be used.
ALL USES	Reclaimed or salvaged wood. These are woods recovered from existing structures, submerged logs or mill scraps. The former two are an excellent source of woods with old growth characteristics. The category excludes wood from dry-land "salvage" logging unless independently certified.
ALL USES	Woods carrying independent certification by an organization accredited by the Forest Stewardship Council*.
Stick Frames, 2 x 4s, etc.	Second growth: western fir, Douglas fir, white oak, southern yellow pine, loblolly pine; glu-lam beams, straw bale, cob
Roofing & Sheathing	Straw board or other boards made from agricultural residue; second growth hem-fir, oak or birch plywood; oriented strand board
Siding, Shakes and Shingles	Concrete board, fiberglass, metal
Interior Trim	Second growth: alder, white basswood, eastern fir, western white pine, butternut, cherry, western fir, maple, red oak, lodgepole pine, larch, black oak, sweetgum, southern yellow pine, northern white pine, spruce pine, yellow poplar, sycamore, sugar pine, ponderosa pine; high-density fiberboard
Stairs	Second growth red or white oak, maple, ash
Wood Flooring	Bamboo†, Linoleum™, reclaimed cork†, certified woods, bay, beech, pecan, hickory, red oak, white oak, live canyon oak, black oak, tanoak, sycamore, eastern cedar, red pine, lodgepole pine, soft and hard maple, European spruce, fir

Veneers	Second growth: aspen, ash, beech, bay, birch, butternut, cottonwood, elm, claro, walnut, magnolia, maple, red oak, white oak, black oak, sycamore, sweetgum, tanoak, tupelo, black willow, pecan, ponderosa pine, hickory, red gum, aromatic cedar, basswood, poplar
Exterior Doors & Trim	Second growth: alder, birch, northern white pine, white basswood, ponderosa pine, magnolia, spruce, pine, white oak, cypress, sugar pine, western white pine, Douglas fir, larch, western fir, redwood; aluminum, steel, composites
Decking & Boardwalks	Recycled plastic lumber**; second growth: eastern cedar, redwood; pressure-treated wood*; palmwood
Cabinets, Counters & Bar Tops	LUMBER: Second growth ash, bay, beech, butternut, chinquapin, redgum, madrone, black oak, walnut, larch, ponderosa pine, lodgepole pine, live canyon oak, tanoak PLYWOOD: Second growth: birch, fir, maple, poplar, red oak, white oak, red alder; strawboard, particle board, medium-density fiberboard SURFACES: Tile (particularly from recycled glass), stone
Interior Furniture	Antiques; palmwood††, twig furniture; rattan; second growth: sada, alder, ash, bay, beech, birch, buckeye, butternut, chinquapin, elm, hackberry, juniper, magnolia, hard maple, red oak, white oak, black oak, sycamore, tupelo, tanoak, live canyon oak, walnut, yellow poplar, Douglas fir, sweet gum, northern white pine, true hickory, black willow; rubberwoods (from southeast Asian rubber plantations); metal
Exterior Furniture	Recycled plastic lumber**, second growth: white oak§, sassafras, eastern cedar§§, larch, second growth redwood, locust, red mulberry, juniper, catalpa, northern cedar, Pacific yew, eastern fir, Finnish or Baltic birch plywood; metal
Household Items & Novelties	White basswood, pakkawood, osage orange, persimmon, olive, fruitwoods, almond, beech, sassafras, European boxwood
Pencils	Recycled newsprint (Eberhard Faber's EcoWriter), incense cedar
Tool, Broom & Mop Handles	Recycled plastic, plastic, steel, aluminum, second growth: hickory, ash, acacia, European boxwood, beech, black locust, red oak, sycamore, olive
Bulkheads & Pilings	Recycled plastic lumber**, recycled plastic sheet pile**.

Trellises and Fencing	Recycled plastic lumber**, second growth Eastern white cedar
Picnic tables	Recycled plastic lumber**
Plaques	Medium density fiberboard, second growth: walnut, oak
Frames	Recycled materials, second growth: birch, maple

* Pressure-treated wood should only be used as a last resort. CCA (chromium/copper/arsenic) is used as the treating agent. It is highly toxic to humans and other animals and will likely leach toxins into the surrounding environment. CCA is being phased out for sale for residential use by January 1, 2004.

Certified Wood

Contact Metafore for certified and salvage wood products: 503/590-6600; 14780 SW Osprey Drive, Suite 285, Beaverton, OR, 97007-8424; info@metafore.org, www.metafore.org

Don "Stubby" Warmbold, lumber and millwork from salvaged timber, 609/538-8680; 6 Bywood Lane, Ewing, NJ 08628

Northeast Ecologically Sustainable Timber, Chip Chapman, 603/674-0943, fx: 603/740-9898; nest@nh.ultranet.com, www.nh.ultranet.com/~nest; 212 Tolend Road, Dover, NH 03820

Plaza Hardwood, Inc. certified wood flooring and architectural millwork, Paul Fuge, 800/662-6306;
5 Enebro Ct., Santa Fe, NM 87505; paulfuge@plzfloor.com, www.plzfloor.com

Clark Forestry, black locust and white oak decking and other certified domestic woods, PO Box 307, Lone Rock, WI 53566; 608/583-7100; swc@mhtc.net; http://sustainablewoods.com

Reclaimed Wood

Contact NW Ecobuilding Guild for certified and salvage wood sources:
P.O. Box 58530, Seattle, WA 98138-1530, (206) 575-2222, http://www.ecobuilding.org/

Vintage Lumber Company, fine aged (salvaged) timber & millwork, Dennis Robert, 760/734-1479; P.O. Box 460516, Escondido, CA 92046

AsiaRain, Inc., tropical hardwood flooring reclaimed from railroad ties in Thailand, P.O. Box 696; 1104 Firenze Street, McCloud, CA 96057 USA; ph: 800/220-9062; fx: 530/964-2160; goodwood@snowcrest.net; erika@asiarainhardwoods.com; www.asiarainhardwoods.com

City Logs, reclaimed street trees milled by Amish millers.
www.citylogs.com

** Recycled Plastic Lumber & Composites

The products made from 100% recycled plastic, with no wood fiber, probably will be more durable than composites in a wet climate and often have longer warranties (also usually cost more). They are truly no-maintenance, as opposed to composites. **Note recycled plastic lumber is generally not made for structural (load-bearing) uses. TriMax and Polywood recycled plastic lumbers are both load-bearing lumbers. Polywood is made from 100% post consumer recycled plastic with recycled polystyrene; TriMax uses 20% pre-consumer recycled fiberglass. Non load-bearing RPL is fine for fences, pedestrian deck surfaces, stairs, and railings.**
Disclaimer: Rainforest Relief has not tested any of these products, nor do we make any guarantees or warranty. This information is provided solely to assist you in finding alternatives to woods such as cedar, mahogany, and ipê. Technical specifications can be obtained from companies that sell these products.

Polywood, Inc., Jim Kerstein, President, 125 National Road, Edison, NJ 08817; 732/248-8810, 800/915-0043, fax: 732/248-8828; www.polywood.com.

US Plastic Lumber, Inc. – Owners of CareFree, TriMax and SmartDeck recycled plastic lumbers.
Corporate offices: 2300 Glades Road, Suite 440W, Boca Raton, FL 33431, 800/653-2784, 561/394-3511; fx: 561/394-5335; Email: Kim Morrell at morrellk@uspl.net

California CareFree regional sales representative: Westmark & Associates, ph: 888/289-2500 x 2704; westmarkandassociates@email.msn.com

CareFree Products of Long Island, Inc. 100% recycled plastic lumber, fencing products, picnic tables, benches, & casual furniture.

In New York, Call Earth Care, Susan Wolfson: 800/445-4445 or 516/427-3432; fax 516/427-7965; EarthCare@interstor.com, http://www.interstor.com/earthcare/

All Coast Forest Products, contact: Dwight Hayes, 18330 Monte Vista Ave., P.O. Box 4120, Chino, CA 91780; 800/864-6881, fx: 909-591-2853

All Coast Forest Products, contact: Greg Gomon, 250 Asti Rd., P.O. Box 9, Cloverdale, CA 95425; 800/767-2237, fx: 707/894-4239

TriMax, Northeast office, Brian Betz, 888/289-2500 x 2627, fx: 570/374-2619; betzb@uspl.net
NYC rep: David Brownstein, 718/383-8320

SmartDeck – recycled plastic/oak waste fiber composite decking. Nice railing kits, and can be wired. SmartDeck Systems, 2600 W. Roosevelt Road, Chicago, IL 606081, (888) 7-DECKING (888/733-2546), info@smartdeck.com, www.smartdeck.com

Plastic Pilings, Inc. — Marine pilings, camels, bumpers, fenders. 1485 S. Willow, Rialto, CA 92376USA; 909/874-4080; fax: 909/874-4860; ppi@plasticpilings.com; www.plasticpilings.com

Envirowood – 100% recycled plastic, 888/357-8302, info@envirowood.com, http://www.envirowood.com/

Polyex by Plastival - 100% recycled plastic boards (note this company also makes toxic PVC products that should be avoided). info@plastival.com, http://plastival.com/polyexhomepage.htm

Phoenix Recycled Plastic Corp., 225 Washington Street, Conshohocken, PA 19428, 610/940-1590, fx: 610/940-1593; www.plasticlumberyard.com

N.E.W. Plastics Corp., 112 Fourth Street, P.O. Box 220, Luxemburg, WI 54217, 414/845-2326, fx: 414/845-2439

ShoreGuard – recycled vinyl seawalls (bulkheads).
Material International, Inc., 4501 Circle 75 Parkway, Suite E-5370, Atlanta, GA 30339, 800/256-8857, 770/933-8166, fx: 770/933-8363

Seaward International, Inc. – Seapile and Seatimber pilings and bumpers of recycled plastic.
3470 Martinsburg Pike, P.O Box 98, Clearbrook, VA 22624-0098, 800/828-5360, 540/667-5191, fx: 540/667-7987

Yemm & Hart – recycled plastic sheet material.
573/783-5434, fx: 573/783-7544, yemmhart.com

Wood/Plastic Composites:

CorrectDeck, a waste wood fiber/plastic composite made of polypropylene.
Correct Building Products, 15 Morin Street, Biddeford, ME 04005, 888-290-1235; 207-284-5600; fax: 207-286-8392; email: info@correctdeck.com

Trex, a widely available wood 'waste' fiber/pre-consumer recycled plastic composite lumber. Not recommended for structural members, heavy loads or water or ground contact.
www.trex.com/
John DeMasi, sales representative, 516/564-9781, fx: 516/564-9799; P.O. Box 243, East Meadow, NY 11554-0243

Agricultural Residue Panels and Boards

Phenix Biocomposites, panels made from agricultural residues such as sunflower seed husks, 800/324-8187; 507/388-3434; fax: 507/344-5522; P.O. Box 609, Mankato, MN 56002; phenixbiocomposites.com

Agriboard, a structural insulated panel laminated to orient the fibers, made from wheat & rice straw. Agriboard Industries, subs. of Ryan Development Co. of Whichita; http://www.agriboard.com

Enviro Board Corporation, rice straw fiberboard, 4735 Sepulveda Blvd. Suite 356, Sherman Oaks, CA 91403; contact Glenn Camp, ph: 818/981-2290; fx: 818/981-2071; gcamp@enviroboardcorporation.com; http://members.tripod.com/enviroboard/

Straw Products USA, L.L.C., straw panels for sound insulation, buildings and other applications; manufacturing equipment), 1224 North 1st Street, Yakima, WA 98901; ph:: 509/952-1837; 509/574-8776; fx: 509-574-8773; greg@strawusa.com; sales@strawusa.com; http://www.strawusa.com/

† Bamboo & Cork Flooring

Bamtex Bamboo Flooring, Mintec Corporation, 100 E. Pennsylvania Ave., Towson, MD 21286, 410/296-6688; 888 9-mintec, fax: 410/296-6693, mintec@clark.net, www.communety.com/mintec
ContempoCork, recycled cork flooring, 175 Dorchester Road, River Edge, NJ 07661; ph/fx: 201/986-7915; oliver@carroll.com

†† Palmwood™

Pacific Green/Coconut Timber Company; 'Pacific style' furniture and flooring made from senile coconut palm trees from plantations in Fiji.
California showroom: 310/845-9652; 8675 Washington Blvd., Culver City, CA 90232; www.palmwood.com
Palmwood™ is a registered trademark of coconut palm timber made by Pacific Green, based in Fiji.

Furniture

Eco-Furniture.com (a Green Culture® company), selection of furniture from recycled and ecologically preferable materials, 23192 Verdugo Drive, Unit D, Laguna Hills, CA 92653; ph: 800/233-8438 or 949/643-8795; fx: 800/480-8270 or 949/360-7864; Sales@Eco-Furniture.com; http://www.Eco-Furniture.com

§ Oak Outdoor Furniture

Appalachian White Oak Outdoor Furniture, Sky Environmental Building Supply, 4567 Bell Blvd., Bayside, NY 11361, 800/640-7991

§§ White Cedar Outdoor Furniture

Tidewater Workshop, 1515 Grant Street, Egg Harbor City, NJ 08215, 800/666-TIDE (8433), fax; 609/965-8212, www.tidewaterworkshop.com