



IN HARDWOOD PLYWOOD CABINETS

Soy-Based Adhesive Eliminates Dangerous Formaldehyde

Counts Toward Making the Building LEED Certifiable

For the 20 people who work in Ft. Lee’s Building 11108, it’s comforting that the cabinets throughout the building emit no formaldehyde.

That’s because formaldehyde is classified as a known human carcinogen by the National Toxicology Program, an interagency program of the U.S. Department of Health and Human Services. According to the U.S. Environmental Protection Agency (EPA), formaldehyde can also cause eye, nose and throat irritation as well as respiratory problems.

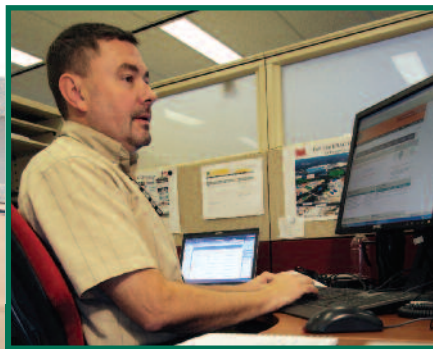
Building 11108 is the new home of the Army’s 262nd Quartermaster Battalion. The 15,000-square-foot one-story

building has about 25 cabinet units scattered through seven locations in the facility. All of these cabinets are constructed with PureBond® hardwood plywood made with a soy-based formaldehyde-free adhesive from Columbia Forest Products (CFP).

The soy-based adhesive won the EPA’s Presidential Green Chemistry Challenge Award in 2007 because it replaces the commonly used formaldehyde adhesive. Hopewell Craft Company used CFP’s hardwood plywood to construct the cabinets for Fort Lee. One of many cabinet companies across the country using the soy-based product, Hopewell Craft is located about 10 miles from Ft. Lee. The family owned business custom builds cabinets for customers in the Mid-Atlantic region.

“It’s nice to work with formaldehyde-free material when fabricating our various products,” says Hopewell Craft Company Vice President Jerry Ellis. “When all hardwood

Donnie Durbin, project superintendent, LifeCycle Construction Services, which built Ft. Lee’s Building 11108, explains that the inner part of the hardwood plywood contains the formaldehyde-free soy-based adhesive.

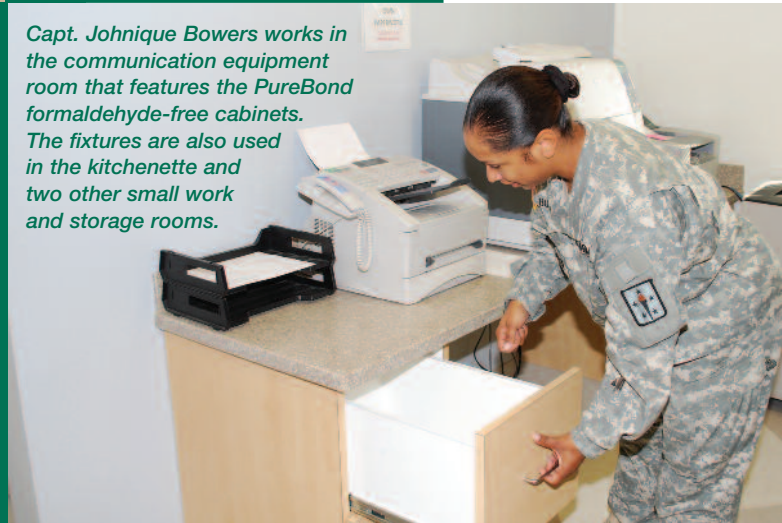


LEED accredited professional Brian Pieplow is responsible for making sure Building 11108 and all other new buildings at Ft. Lee, are LEED Silver Certifiable. The cabinets helped Building 11108 be LEED certifiable in three ways.

Other federal facilities that have formaldehyde-free cabinets made from PureBond® hardwood plywood include:

- GSA Office in Bank of America Building (Orlando, FL) – LEED Project
- Chattooga River Ranger Office (Tallulah Falls, GA) – LEED NC Project
- GSA FAS Workplace Realignment (New York, NY) – LEED Project
- Test Quarters 4 & 5 (Fort Stewart, GA) – LEED Project
- Neosho National Fish Hatchery (Neosho, MO) – LEED Project
- Starkville Wood Products Insect Research Lab (Starkville, MS)
- Mammoth Cave National Park Visitor Center Complex Rehab. Phase II (Cave City, KY) – LEED Project
- NAVFAC P191 Command Operations Facility (Cherry Point, NC) – LEED Project

Capt. Johnique Bowers works in the communication equipment room that features the PureBond formaldehyde-free cabinets. The fixtures are also used in the kitchenette and two other small work and storage rooms.





Jerry Ellis, (right) and Bill Nash of Hopewell Craft Company complete fabrication of a five-hole flag stand made with PureBond hardwood plywood.

Sgt. Sheri Helgens shows the formaldehyde-free cabinets. "It's nice to know that these cabinets help keep our indoor air healthier. My husband and I own a farm in southwest Iowa so it's also good to know that maybe some of our soybeans have gone into making these cabinets," says Sgt. Helgens.



PHOTOS BY JO, LLC

plywood was made with formaldehyde adhesive, the formaldehyde fumes would collect to such an extent that the normal exhaust fans couldn't handle them. We literally had to open all the doors in the building to air it out...even in the winter. The fumes were so strong it actually made your eyes water."

Similarly, Ft. Lee staffs appreciate the cabinets. "It's comforting to know we work in a building that has better, healthier indoor air quality," says Capt. Johnique Bowers.

Sgt. Sheri Helgens says, "It's nice to know that these cabinets help keep our indoor air healthier. My husband and I own a farm in southwest Iowa so it's also good to know that maybe some of our soybeans have gone into making these cabinets."

LEED CERTIFIABLE

Being formaldehyde-free, the cabinets contribute to points under LEED, or Leadership in Energy and Environmental Design, an internationally-recognized green building certification system established by the U.S. Green Building Council. LEED provides third-party verification that a building was designed and built using strategies aimed at improving performance across multiple areas: energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts. LEED has several levels of certification for new buildings.

All new construction of Department of Defense (DOD) facilities must be LEED Silver Certifiable. The DOD LEED certification policy is in response to two Executive Orders implemented by the Bush and Obama Administrations and two laws passed by Congress in 2005 and 2007.

The cabinets helped Building 11108 be LEED certifiable in three ways:

1. Because cabinets are made with hardwood plywood that uses soy-based adhesives, they contain no added formaldehyde. Therefore, the cabinets meet LEED requirements for using "Low-Emitting Materials, Composite Wood & Agrifiber Products."
2. The cabinets were fabricated in the nearby city of Hopewell, Virginia so they qualify for use of "Regional Materials." (Local purchasing is also a Fort Lee policy.)
3. The cabinets help meet Material and Resources Credit 6 - Rapidly Renewable Materials (use of rapidly renewable building materials, including adhesives, made from plants that are typically harvested within a 10-year or shorter cycle) for 2.5% of the total value of all building materials.

FACT FILE

For more information about PureBond® Hardwood Plywood contact: Richard Poindexter, LEED AP, www.cfpwood.com 800-837-1609

PureBond's decorative hardwood plywood can be used to make cabinets, furniture, and a variety of other wooden fixtures. The wood panels can be purchased through PureBond's wholesale distributor network as well as at retail outlets like Home Depot. Fabricated products are available through a variety of companies, including those participating in PureBond's Fabricator Network.

For more information about Ft. Lee contact: Stephen Baker, Public Affairs www.lee.army.mil/ Stephen.j.baker4.civ@mail.mil

America's farms are just beginning to tap their potential as a source for natural, renewable biobased products that offer benefits to worker health, the environment, America's economy and energy security. To learn more about the many biobased products made from soybeans, go to www.soybiobased.org. Because of the potential for biobased products to create new markets for soybeans, U.S. soybean farmers have invested millions of dollars to research, test and promote biobased products. Much of this work was done through the United Soybean Board (USB), which is composed of 69 U.S. soybean farmers appointed by the U.S. Secretary of Agriculture to invest soybean checkoff funds. As stipulated in the Soybean Promotion, Research and Consumer Information Act, USDA's Agricultural Marketing Service has oversight responsibilities for the soybean checkoff.

Go to www.soybiobased.org to learn more



**16305 Swingley Ridge Road, Suite 120 • Chesterfield, MO 63017
1-888/579-1580 • FAX: 314-579-1599 • merker@smithbucklin.com**

USB Publication Code: 2354/2406-11-2011-2000



This profile is provided for information only. The United Soybean Board does not endorse, promote or make any representations regarding any specific suppliers mentioned herein.

