



FORMALDEHYDE-FREE HARDWOOD PLYWOOD

Formaldehyde-Free.
Leed®-Compliant.
Carb-Compliant.
Cost-Competitive.

 **columbia**
FOREST PRODUCTS™





“The bottom line is that the World Health Organization has indicated that urea-formaldehyde off-gassing is a known human carcinogen. Urea Formaldehyde Free (UFF) is where products need to go. Columbia Forest Products is leading the way with PureBond.”

Rick Fields, President, Neil Kelly Cabinets Inc.

With PureBond, You Get Everything.

Except what you don't want.

When you need a decorative panel, you expect quality veneers, core integrity and high panel performance. All at a reasonable price. With PureBond® from Columbia Forest Products, you get all that. And no urea formaldehyde.

As formaldehyde continues to make national headlines, consumers are paying increased attention. Each year, more regulation and green building projects calling for low-emitting materials register exponential growth. And only one product delivers urea formaldehyde-free, moisture-resistant, cost-competitive hardwood plywood.

Available exclusively from Columbia, PureBond hardwood plywood for veneer-core and formaldehyde-free composite core construction is manufactured using an innovative adhesive inspired by nature. So choosing PureBond is as easy and natural as... breathing.



Nature-Inspired Design Rooted in Biomimicry.

How PureBond works.

As the Pacific Ocean swirled around him, a question rushed into Dr. Kaichang Li's head: how do mussels keep their grip on rocks that are constantly pounded by waves?

Dr. Li, a professor at Oregon State University's College of Forestry, found that mussels secrete proteins known as byssal threads, which provide superior strength and extraordinary flexibility. His curiosity led to groundbreaking research—funded by Columbia Forest Products and others—based in the principles of biomimicry, which studies nature and then imitates its designs and processes to solve human problems.

Li discovered that soy proteins can be modified to perform similarly to byssal threads. And not only did they deliver phenomenal adhesion, they also offered exceptional water resistance.

This breakthrough led to PureBond, proving that enhanced environmental quality and increased product performance can go hand in hand.



Kaichang Li, Ph.D.

“Columbia Forest Products has finally cracked how a mussel adheres underwater and created a very good resin that is urea formaldehyde-free. This is exciting.”

Janine Benyus, Author of Biomimicry: Innovation Inspired by Nature, Greenbuild 2005 Conference



Very Few Bonds are as Pure.

What PureBond means for the world.

Improving indoor air quality benefits us all. And eliminating urea formaldehyde from composite wood products is a sure way to enhance the quality of our indoor environments.

When Columbia Forest Products says PureBond is urea formaldehyde-free, it means urea formaldehyde-free. Though formaldehyde does occur naturally in wood, there is absolutely no added urea formaldehyde in the construction of PureBond hardwood plywood.

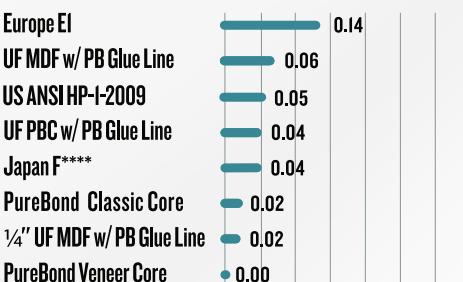
It's simple: When you use products made with formaldehyde-free PureBond technology, you're helping to reduce toxins within the indoor environment, compared to traditional hardwood plywood products.

Columbia is well ahead of regulations by converting its manufacturing processes to PureBond. It's a win for workers, their communities, customers and the environment.

Composite wood products contain urea formaldehyde, which is a known carcinogen. UF is also designated as a toxic air contaminant (TAC) in California with no safe level of exposure, and state law requires ARB to take action to reduce human exposure to TACs.

*California Air Resources Board (CARB)
Fact sheet on Proposed Airborne Toxic Control Measure
for Composite Wood Products, July 2006.*

Urea Formaldehyde Emission Line Comparison in parts per million



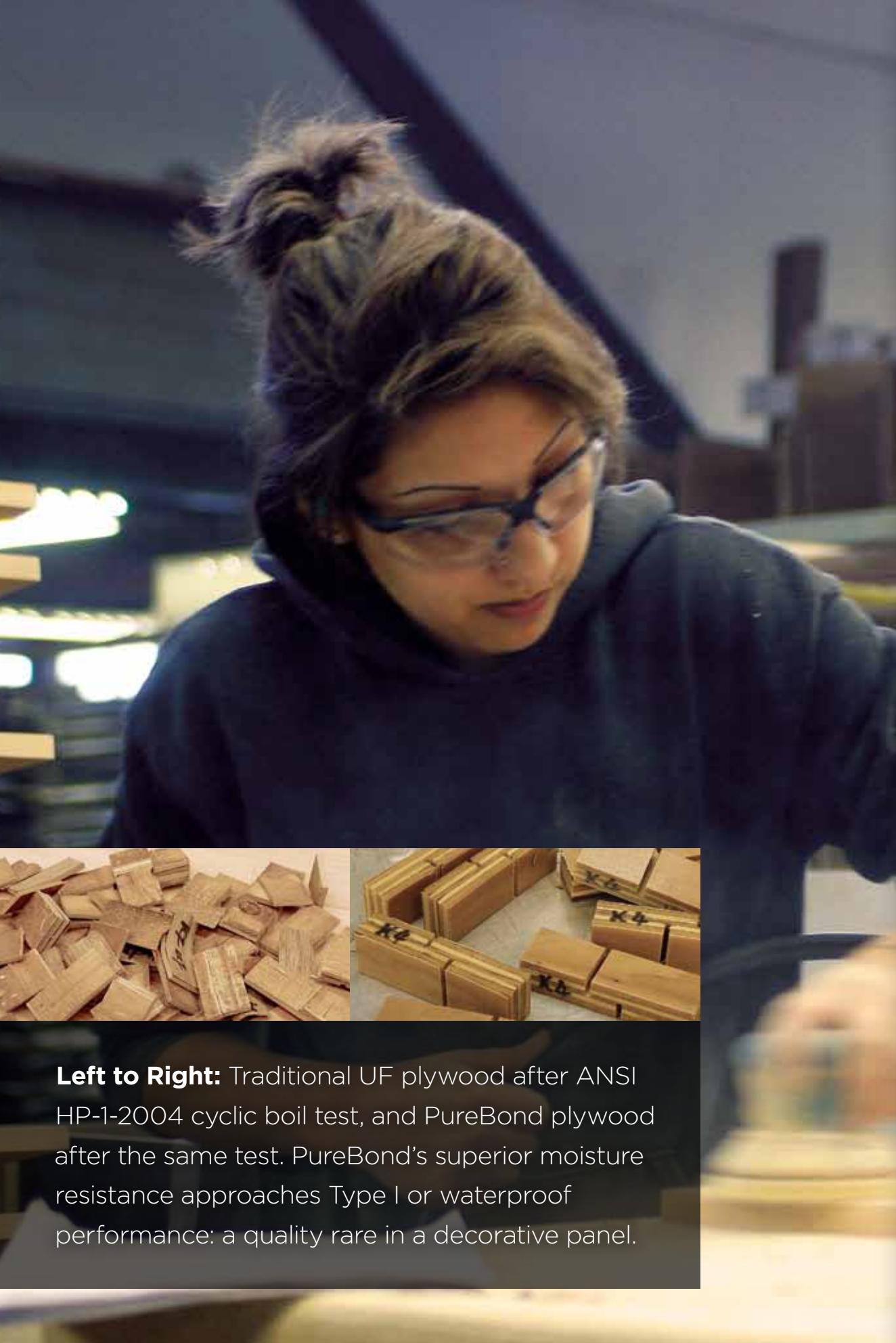
Composite core hardwood plywood tested contained urea formaldehyde resins but were laminated with Columbia's formaldehyde-free PureBond technology.



PureBond panels are compliant with the US Green Building Council's Leadership in Energy & Environmental Design (LEED®) EQ Credit 4.4 for Low-Emitting Materials: Composite Wood.



PureBond hardwood plywood panels can be specified as FSC-certified. Columbia Forest Products was one of the first North American members of the Forest Stewardship Council. By buying products with an FSC label you support the growth of responsible forest management worldwide. FSC Trademark ©1996 Forest Stewardship Council A.C. sw-coc-065



The New Standard in Hardwood Plywood.

What PureBond means for you.

With unparalleled environmental performance, there's nothing like PureBond. Even better, independent moisture resistance tests reveal that PureBond outshines UF adhesives, approaching Type I or waterproof performance in product testing.

Best of all, PureBond's award-winning innovation can be yours for what you'd pay for traditional veneer core hardwood plywood options. PureBond veneer core plywood is cost-competitive with standard UF construction. So urea formaldehyde-free no longer means premium pricing.

Backed by the manufacturing expertise of Columbia Forest Products, PureBond comes in the widest variety of quality veneers and reliable cores found anywhere. And it's available now.

Urea formaldehyde-free. LEED-compliant. CARB-compliant. Moisture-resistant. Cost-competitive.

PureBond is the easy choice. Pure and simple. Why would you choose anything else?



Left to Right: Traditional UF plywood after ANSI HP-1-2004 cyclic boil test, and PureBond plywood after the same test. PureBond's superior moisture resistance approaches Type I or waterproof performance: a quality rare in a decorative panel.



From The Natural Environment to The Built Environment.

PureBond in practice.

From innovative science and credible endorsements to proven performance and competitive pricing, PureBond passes the test. That's why it's used in many of the world's most exciting building projects. For example, The Meriwether (at left), a LEED-silver high-rise condominium in the revitalized South Waterfront district in Portland, Oregon, features doors and cabinetry throughout made from PureBond panels.

And PureBond was recently specified in the new, interactive headquarters of the US Green Building Council. Along with other leading green building breakthroughs, PureBond will represent the most advanced environmentally-preferable products in the marketplace.

PureBond is ready for your next job. Home, school, hospital, store, or high-rise, PureBond can help people live, learn and work to their natural potential. For specification information, point your web browser to www.choosecolumbia.com.

A garden in the sky grows high above the new South Waterfront district in Portland, Oregon. Along with doors and cabinetry featuring PureBond plywood, the 'eco-roof' that soaks up stormwater is just one element of The Meriwether condominium high-rise that's part of a comprehensive effort to protect the health of the adjacent Willamette River and its nearby residents.

At right, craftsmen at Neil Kelly Cabinets prepare PureBond cabinets for the Meriwether.





- 2005** Top 10 Green Building Product *BuildingGreen, Publishers of Environmental Building News and the GreenSpec® Directory*
- 2005** Editors' Pick *Architectural Record*
- 2006** Grand Prize *MetaFore Innovation Awards*
- 2006** Top 10 Green Building Product *Sustainable Industries Journal*
- 2007** EPA's Presidential Green Chemistry Challenge Award



Columbia Forest Products is North America's largest manufacturer of hardwood plywood, veneer and flooring. As an employee-owned company, Columbia not only has a vested interest in providing world-class customer service, we also understand that sustainability starts with our personal integrity and is part of everything we do—from the forest to your finished product.