



QUESTIONS & ANSWERS

Product

What is the difference between our NU Green product and the SkyBlend product?

It is about the density. NU Green is 39.6 lb/ft³ and SkyBlend is 47 lb/ft³, which means a lower carbon footprint for shipping both board and finished products. In Canada, this lower density represents a difference of 14,000 pounds for a truckload.

Do you offer NU Green only in particleboard?

We started with particleboard and are currently considering MDF.

Is NU Green available in Melamine?

Yes, all 81 colors of our Panval line are available, as well as exclusive colors for specific customers.

What is the difference between *California Air Review Board (CARB), Leadership in Energy & Environmental Design (LEED), and other emission standards?*

Carb is a voluntary emission standard proposed by the California Air Review Board. The proposed levels for particleboard are listed below along with comparative codes. It is expected to set the trend in terms of emission levels in the United State and Canada. These levels are adopted on a voluntary basis by panel manufacturers.

**CHART 1
EMISSION CEILINGS AND IMPLEMENTATION SCHEDULE ⁽¹⁾**

Effective Date	HWPW-VC	HWPW-CC	PB	MDF	Thin MDF
Jan. 1, 2009	P1 – 0.08		P1 – 0.18	P1 – 0.21	P1 – 0.21
July 1, 2009		P1 – 0.08			
Jan. 1, 2010	P2 – 0.05				
Jan. 1, 2011			P2 – 0.09	P2 – 0.11	
Jan. 1, 2012					P2 – 0.13
July 1, 2012		P2 – 0.05			

⁽¹⁾Limits based on the large chamber test method (ASTM E1333-96) in parts per million (ppm). Key Code: Phase 1 (P1); Phase 2 (P2); Hardwood Plywood Veneer Core (HWPW-VC); Hardwood Plywood Composite Core (HWPW-CC); Particleboard (PB); Medium Density Fiberboard (MDF). Approved by ARB Board April 26, 2007.

LEED on the other hand, does not issue emissions standards and recycled content. They simply request that the particleboard does not contain urea formaldehyde resins.

Other codes such as those issued by the *Composite Panel Association* (CPA) or European codes have various emission levels.

NU Green	0.00 – 0.01 ppm
CARB (PB)	0.18 ppm (2009) 0.09 ppm (2011)
Building code	0.2 ppm
CPA	0.3 ppm
EPP	0.2 ppm
E1 (Europe)	0.12 ppm
F4* (Japan)	0.05 ppm

*EPP : *Environmentally Preferable Product*

Where can I buy NU Green?

NU Green can be purchased from Uniboard's approved distributors in Canada and the USA. It is a stocked item and rapidly available.

Why is the core of NU Green green?

Thanks to the use of a special additive, Uniboard wants NU Green to be easily identifiable in our distributor's warehouse and in our customer's finished products.

Where is NU Green made?

NU Green is made in Sayabec, Quebec. We are the only Canadian supplier to produce a phenolic resin based particleboard to comply with LEED requirements. In North America, Uniboard is the only supplier east of the Mississippi with such a product.

Is NU Green FSC certified?

Coming soon. NU Green is EPP certified (having no urea formaldehyde and 100% recycled content). There is no other phenolic resin based supplier in North America that is FSC certified. Similar certifications such as Green shield, SCA and SFI have no impact in the LEED certification program.

What sizes and thicknesses are available?

Currently, NU Green is available in 49" x 97", 49 1/2" x 97 1/2", 61" x 97" and available thicknesses are 7/16", 1/2", 9/16", 19/32", 5/8", 11/16", 3/4", 1", 1 1/8". This consists of the widest product offering in the industry for a LEED compliant panel product.

N.B. Thicknesses offerings may vary according to demand.

Is NU Green moisture resistant?

There is no moisture resistant grade for particleboard according to ANSI Standard, because NU Green is made with an exterior glue grade (recognized by ANSI). Our product can resist moisture better than urea formaldehyde based panels. There is however, an ANSI Standard for moisture resistant MDF, which stipulates that thickness swell should be lower than 5% and/or that MOR, after accelerated aging tests, be higher than 50% of the original MOR.

What is the difference between a urea formaldehyde resin (U/F) and a phenol formaldehyde resin (P/F)?

Technically, a P/F resin cures in more time than a U/F resin. It gives a better bond between particles. This “bond” is permanent (no hydrolysis between phenol and formaldehyde), which means little/no formaldehyde emissions from the panel. P/F resins are typically used in “exterior grade” plywood as opposed to U/F in “interior grade” plywood. Commercially, P/F resins cost more than U/F simply because of the molecule costs and the resin’s manufacturing process.

What are the uses for NU Green?

Typically, NU Green finds applications in office furniture manufacturing, doors, kitchen cabinetry, closet organizers, store fixtures, residential furniture, and other segments requiring high quality particleboard made with no urea formaldehyde and 100% recycled wood content.

Why is NU Green darker?

The phenolic resin used to produce NU Green is darker which gives the panel its darker tint. Also, the panel is cured for a longer time, which darkens the wood. There is no color change effect on the lamination of NU Green with TFM. The fibers used and the physical properties of NU Green are of the same high quality level as Uniboard other particleboard.

LEED Information

What is LEED®?

The Leadership in Energy and Environmental Design (LEED), Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings’ performance.

LEED promotes what?

LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

For our product, which key areas we need to know more?

- Indoor Environmental Quality IEQ 4.4
- Materials and Resources MR 4.1
- Materials and Resources MR 4.2
- Materials and Resources MR 5.1
- Materials and Resources MR 5.2

How NU Green will help us to get credit and point per each areas or category?

- Indoor Environmental Quality IEQ 4.4

NU GREEN has no urea formaldehyde resins during the manufacturing process
Credits and points: 1

- Materials and Resources MR 4.1

NU GREEN is EPP certified 100% recycled or recovered wood fiber
Credits and points: 1

- Materials and Resources MR 4.2

NU GREEN is EPP certified 100% recycled or recovered wood fiber
Credits and points: 1 point in addition to MR 4.1

- Materials and Resources MR 5.1

NU GREEN is manufactured in Sayabec, Canada and may contribute to points based on proximity of the project
Credits and points: 1 point

- Materials and Resources MR 5.2

NU GREEN wood fiber is recovered near the manufacturing facility in Sayabec, Canada and may contribute to points based on proximity of the project
Credits and points: 1 point

Certification

What is LEED for Homes?

LEED for Homes is a green home rating system for ensuring that homes are designed and built to be energy and resource efficient and healthy for occupants. LEED can be applied to single and multi-family homes and is intended for both market-rate and affordable housing. The U.S. Green Building Council (USGBC) originally developed the LEED green building rating system in 2000 for new commercial construction. Following LEED's success in the commercial sector, USGBC began the pilot test of LEED for homes in November 2004. There are currently over 4,300 homes across the U.S. involved in the LEED for Homes pilot program and more than 90 that have already been LEED certified as a green home. The LEED for Homes pilot test will conclude in spring 2007 and USGBC will publicly launch the LEED for homes rating system in June 2007.

What is a green home?

A green home uses less energy, water, and natural resources; creates less waste; and is healthier for the people living inside.

What are the benefits of a LEED home?

LEED homes are safer, healthier, more comfortable, and more durable than conventional homes. The benefits of a LEED home include economic benefits such as lower energy and water bills; environmental benefits like reduced greenhouse gas emissions; and health benefits such as reduced exposure to mold, mildew and other indoor toxins. Even better, the net cost of owning a LEED home is comparable to that of owning a conventional home.

How can consumers compare green homes?

One of the many challenges faced by a home buyer is comparing a green home to another home. Any home can be called "green," but how does the homeowner know that it really is green? LEED certification is something that consumers can look for to readily identify green homes that have been third-party inspected, performance-tested, and certified to perform better than conventional homes. The LEED certification ensures that the home you are purchasing was designed to meet the highest standards and is operating exactly the way it is supposed to.

What is the mission of LEED?

LEED is a voluntary program developed by USGBC to promote the transformation of the mainstream home building industry towards more sustainable practices. LEED recognizes and rewards the top performing new homes in terms of resource efficiency and environmental stewardship. LEED is a collaborative initiative that actively involves all sectors of the home building industry including builders, home owners, product manufacturers, service providers, and affordable housing developers.

What is the difference between LEED for Homes and other green home building programs?

There are currently more than 70 local or regional green home building programs in the United States. LEED is the only national homes rating system that clearly defines and establishes benchmarks for the features of a green home. It enables builders anywhere in the country to obtain a green. LEED is a consensus-based national standard for green home building that is developed and refined by a diverse cadre of national experts and experienced green builders.

Why should I build a LEED home?

Over the last six years, LEED has become recognized in the commercial building sector as the de facto national standard of performance for green buildings and has rapidly gained recognition among the public at large. LEED is designed to serve the residential construction industry. Home builders using LEED will be able to differentiate their homes as some of the best on the market. Furthermore, the LEED certification will make it easy for home buyers to readily identify high quality green homes.

Will LEED include existing homes?

The first phase of the LEED for Homes initiative is focused on the construction of new homes. A program for existing homes is being considered but no specific development plans are in place.

How will the quality of LEED homes be assured?

The strength of the LEED program is rigorous third-party verification and documentation. Each LEED home will undergo both on-site inspections to ensure that the LEED features have been installed correctly, and thorough performance testing to ensure proper performance.

Who is responsible for rating a LEED home?

LEED homes are rated by LEED for Homes Providers, local organizations with demonstrated experience and expertise in their region's market. A LEED for Homes Provider has three primary roles in a given market:

- Marketing LEED to builders;
- Providing green home rating support services to builders;
- Training, coordinating, and overseeing LEED qualified inspectors and builder support staff.

LEED for Homes Providers are located around the country and contracted through the USGBC to provide services to builders. They have demonstrated outstanding abilities and have a proven record of supporting builders in the construction of high performance, sustainable homes.

Is NU Green certified by LEED?

No. LEED does not certify products such as NU Green. LEED certifies the building itself. It is up to the builder to prove the use of "Green" products. The MSDS of NU Green will help in that sense.