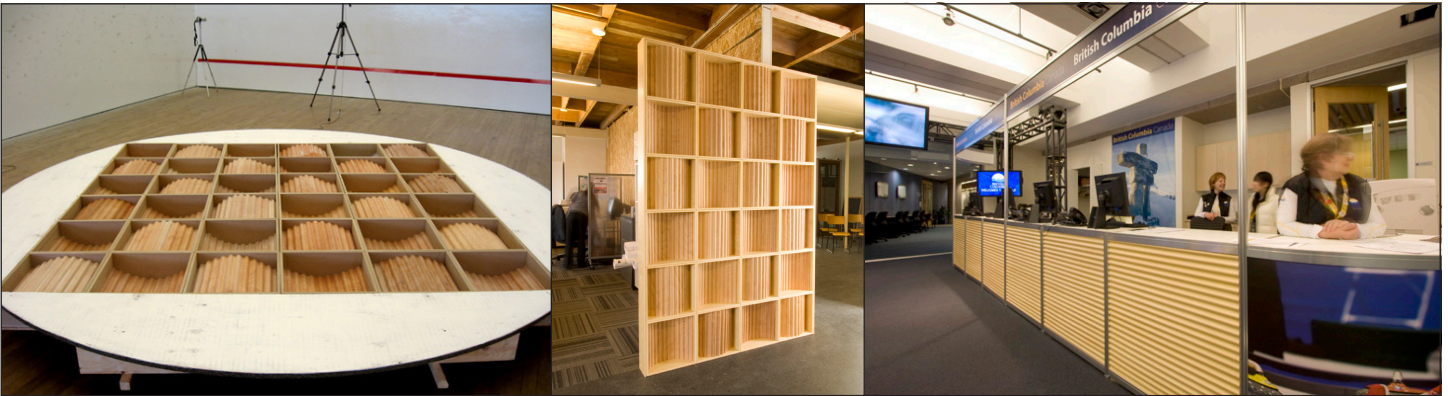


GreenHus Design Ltd.



What originally began as an idea for adding interest and value to plywood has now developed into a full line of products and applications for Christian Blyt and his company **GreenHus Design Ltd.**

New to the market in 2010 is **CorelamTM**, a family of corrugated plywood products developed by the company, and produced on a custom designed and purpose-built press in Vancouver. The first product group to be developed, called Corelam **PieceCoreTM**, is a panel product meant for wall or ceiling applications.

Corelam is one of the first commercial applications of the corrugation process to wood. The patented process took years to develop, culminating in the building of the custom press, which is capable of delivering 1000 square feet of panel product per day. Since corrugation adds strength, less material is needed to produce a Corelam panel than a flat panel of comparable strength. This means built-in sustainability for every Corelam product. Also, since Corelam panels are lighter than comparable flat panels, installation can be quicker and easier.

Through the assistance of the Business Innovation Partnership (BIP), the technical resources of FPIinnovations, and the Acoustics and Noise Control Lab in the Mechanical Engineering Department of UBC worked with GreenHus Design Ltd. to explore and test Corelam's acoustic properties. Says Blyt, "Having access to the resources of the two organizations helped us understand and refine our product in a new way, and it allowed us to demonstrate new opportunities for Corelam that we believed were there, but had no idea to what extent".

Through the product development process, Corelam was found to have some remarkable acoustic performance qualities, especially when manipulated or perforated in specific ways. This led to the development of a new value-added group of Corelam products called **SoundCoreTM**. The most outstanding performer in this group is called **SoundFrameTM** – a 2.4 mm thick Corelam panel curved and held under tension within an 6" deep frame that can be assembled in configurable modules to produce a wall and ceiling system with acoustic diffusion properties that rank with the best in the market. Other products in this group include framed perforated panels of Corelam with sound

insulation backing (called **SoundDrain™**) and gently curved panels with a single centre support frame designed to be suspended from ceilings (**SoundCloud™**).

Corelam is a genuine and significant new entry in the value-added wood products marketplace. These are products with built-in sustainability (less yields more) that capture and enhance the inherent visual appeal of wood while adding strength and delivering outstanding acoustic performance. Corelam brings the best properties of wood to the surface.

All Corelam products achieve high levels of sustainability and safety—because they have been planned this way from the start, rather than as an afterthought. They use less material because the corrugation process adds strength. The core and face veneers used to make Corelam are all renewable materials from Canadian sources. In addition, Corelam utilizes only bonding materials and manufacturing methods that are both safe and sustainable to produce its BC-based products. Corelam products do not emit formaldehyde or hazardous levels of any VOC.

As part of the product development process, Corelam has completed many the stringent testing programs in order to get ready for the commercial market. The basic laminated panel product, which is pre-finished with thermally bonded clear melamine, has been lab tested for fire safety and rated as Class 3, the same as most similar materials intended for interior use. If an application is required in a firewall or fire escape, the product can be finished with a special melamine that is expected to increase the rating to Class A/1 without the use of fire retardants.

Examples of Corelam products have already be installed in such locations as the 2010 BC Canada Pavilion at Vancouver Art Gallery, the 2010 BC International Media Centre at Robson Square in Vancouver, the ATC (All Terrain Cabin), an international traveling exhibition of Canadian design, material, and technology, and the **Light House Sustainable Building Centre** in Vancouver where SoundFrame and a Corelam door are on permanent display.

For more information on this project or Corelam™
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