



Engineered
Timber
Resources

Engineered Timber Resources (ETR) is a vertically-integrated design and manufacturing company that has operations and partners in North America, South America, and Asia. We see the future of by-product and sustainable flooring, and are here to engineer it, or re-engineer it - the movement, and the products.

Waste by-product

+

modern technology

+

socially-responsible labor

=

ETR products

Contract work and exclusive product development available for: flooring, interior/exterior paneling and millwork, "custom" products.

[Contact](#) with serious inquiries only.



Engineered
Timber
Resources

About Engineered Timber Resources

Engineered Timber Resources is a US-China joint venture partnership which designs and manufactures products from 100% reclaimed post-industrial by-product material. Selected by-products from the furniture and silk manufacturing industries are collected, compressed, and re-formed to specification in a patented process. ETR has the exclusive sales rights for these patented compressed woods in the North American market and other strategic markets around the globe.



ETR brings together western design, years of “green” product development, cutting edge fabrication, an extensive network of manufacturing contacts and partners, a strong background in international business relations and logistics transport, and a tremendously strong vision for creating a new market segment using reclaimed raw materials in wood-based manufacturing. ETR’s unique abilities enable it to offer turn-key product offerings that are available in a multi-sku package, involving various product categories.

ETR is interested in forging partnerships with select manufacturers and suppliers to strategically expand this new segment of the wood manufacturing and product industry. Our goal is not only to further the use of “green” and sustainable raw material sources, but in doing so, to create superior products that outperform their traditional counterparts. When you think of ETR, think “sustainability”!





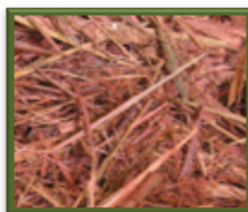
ETR Products

ETR's products are all made from FSC-certified, 100% post-industrial by-product material, all diverted from landfill. This by-product material is re-processed and re-engineered into an extremely dense, stable and aesthetically pleasing composite log. This log, or "engineered timber", can essentially be considered a new raw material, a direct replacement for any mill-supplied timber used in the manufacturing of traditional wood-based products. Not only is this material an easy substitute for the manufacturing of most products, but in almost all cases it will make a better end product.



During the manufacturing process, there are a number of variables that can be changed, which can alter the appearance of the product and significantly affect its physical properties. Depending on the desired outcome and the required properties of the end product being created, these variables can be mixed and matched to produce the ideal component construction. The factors and variables we have the ability to adjust are:

- **Recipe** – by arranging the fibers in a specific way or formula, relative to color, size, pattern, etc., the desired aesthetic end result can be created.





Engineered Timber Resources

- **Color (*stained vs. infusion*)** – the fibers can be stained with natural pigments and arranged in the desired format, or the entire product can be “dye-infused” to create a product with a solid-body color.
- **Cut** – the “engineered timbers” can be cut horizontally (sliced perpendicular to the direction of compression), giving a more “open grain” pattern, or they can be cut vertically (sliced in the same direction as the level of compression), which gives a much more linear presentation.
- **Glue selection (*Interior vs. exterior*)** – depending on the intended use or product being created, the standard low-VOC interior-grade adhesive can be replaced with E-1 compliant exterior-grade waterproof glue suitable for use in products including decking, exterior furniture boards, and siding materials.
- **Coating** – depending on the application, a variety of different finish coatings can be used. The material can be left unfinished, coated with a natural oil or wax, or top-coated with a urethane or lacquer.





Mulberry (species: *Morus Alba*)



The Mulberry tree is abundant throughout northern China, where there are over 760,000 hectares of the species found on government owned land. It grows in any area suitable for tea plants, and they are often found adjacent to one another. Once planted, it takes 3 years for the Mulberry to reach a harvestable age. Typically, it dies naturally after 15 to 20 years, though some trees 2000 years old are known to exist. The growth of the Mulberry is well defined, and it needs pruning to flourish. Once the leaves form in the spring, the silk worms devour them, after which the main growth for the year is finished. The branches must then be trimmed, or the ultimate growth of the tree will be stunted. Yearly and periodic maintenance helps the species flourish. About 5 tons of branches can be harvested annually per hectare of mulberry plantation.

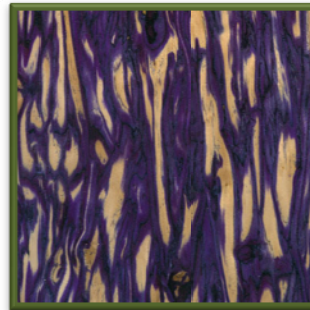
The mulberry tree has long-standing historical value and importance in Chinese culture and society. The silk industry began more than 5000 years ago when it was realized that the silk worm ate the mulberry leaf and produced silk fiber. The silk industry flourishes even today. In addition to silk production, the Mulberry leaf has been used over the centuries in traditional Chinese medicine, and is known to aid in the treatment of high blood pressure and diabetes. The fruit of the Mulberry is also used in wine and fruit drink industry. The bark of the Mulberry can be mixed with silk for clothing, and is used as a purifier in waste water treatment due to its high concentration of pectin. Additional commercial and medicinal uses for the Mulberry are being tested. The benefits of the Mulberry are far reaching with almost limitless potential.





Engineered
Timber
Resources

Mulberry Profiles



Song Wood (species: mix of up to 7 species)

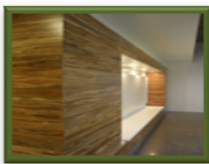
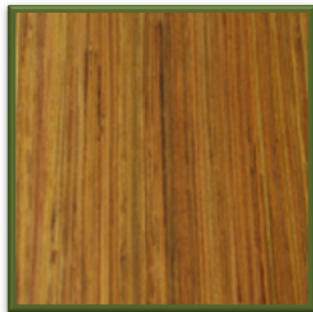


Song Wood is a mixture of several different species of wood, all of which are by-products from the furniture and construction industries. This 100% post-industrial culmination of raw, dried, and unfinished material is diverted from the landfill for use in the production of our Song Wood line. This material is recycled with an aesthetic appeal unseen in a traditional product. It sings a song of beauty.



Engineered
Timber
Resources

By-Product Profiles





Engineered
Timber
Resources

Reclaimed By-Product (species: many, with emphasis on palm)

(Products in Development)

Our reclaimed by-product wood, known to us as Antique BP Wood, is a mixture of reclaimed wood from around the globe. All of the material is 100% post-industrial in its raw form. It is essentially wood waste that is otherwise unusable, with no other commercial or economic value. We have a partner who has found a use for it, and we are helping to turn this otherwise unusable material into a useful and marketable product line. There is absolutely no waste produced from our process – waste in...product out.



Please check out our website: www.etimberr.com for more details.