

FROM THE WOODS

Hardwood Veneer



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Hardwood veneer is a very thin layer of wood sliced or peeled from a hardwood log. It is a unique and valuable forest product. It is usually made from the “highest quality” logs—those that have very few imperfections such as knots and decay. Hardwood veneer has many uses.

VENEER IS EVERYWHERE

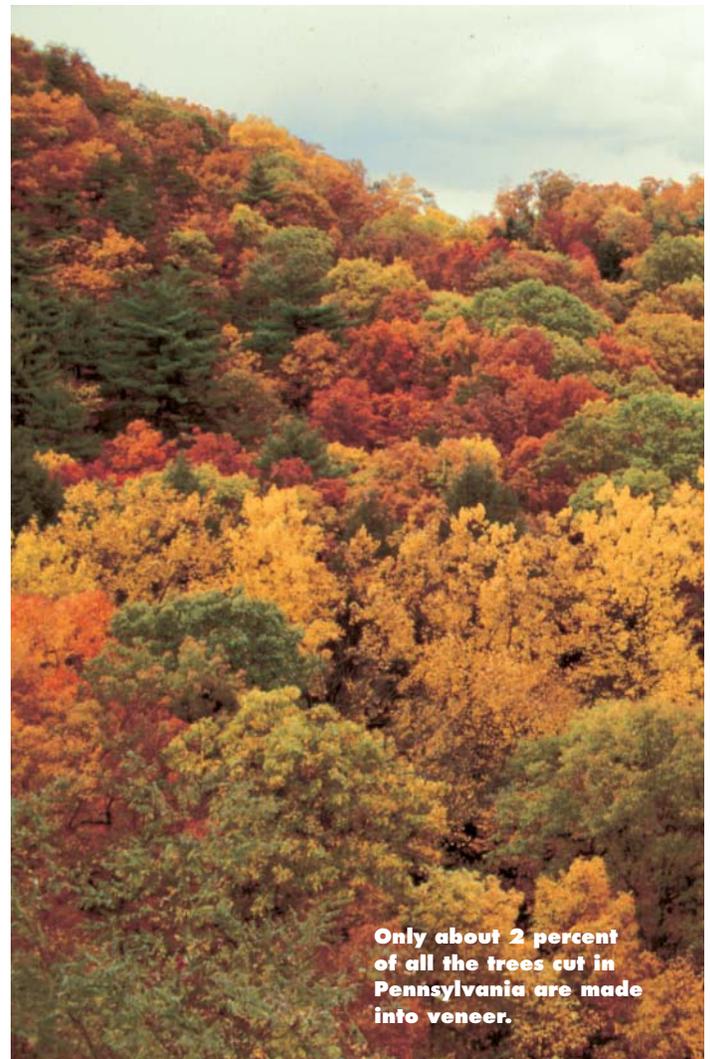
The purpose of veneer is to cover a less attractive or less valuable product with a more attractive surface. Veneer covers tables, kitchen cabinets, doors, and floors. It also covers many musical instruments such as guitars, pianos, and organs. Using veneer helps manufacturers keep down the cost of making wood products. This makes wood products more affordable. The standard thickness of hardwood veneer is 0.6 millimeters ($1/42$ of an inch). However, it may be cut thinner or thicker depending on its final use. For example, thin veneer wraps best over moldings and furniture, while

thicker veneer is more durable on plywood flooring.

The most common types of trees used for making attractive hardwood veneer are red oak, black cherry, black walnut, sugar maple, tulip poplar, and white ash. Only about 2 percent of all the trees cut in Pennsylvania are made into veneer. The rest are made into hardwood lumber (70 percent) or paper and other wood fiber products (25 percent).

A FASCINATING PROCESS

Veneer production begins with the harvest of trees in the forest. There, tree trunks are cut into logs and separated into two piles: logs for sawing into lumber (called sawlogs), and logs for chipping to make wood fiber products such as paper. The sawlogs are sent to sawmills where workers separate logs that may qualify as veneer quality from the other logs. Veneer log buyers come to the sawmill and look at these logs. They decide which logs meet the quality criteria



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and negotiate purchases. These logs are worth much more than other logs, and competition between buyers can be keen. Once sold, truckers take the logs to a veneer plant.

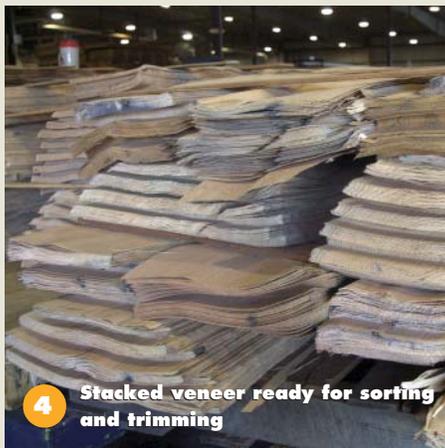
At the veneer plant, a *debarker* removes the bark from the logs. A metal detector then scans the logs to check for pieces of metal, like fence wire, nails, and bullets. Metal must be removed from logs because it will damage the expensive veneer cutting machinery. A worker then loads the logs into a high-humidity steam chamber or into a hot water vat.

The logs “cook” there for approximately 48 hours. The exact cooking schedule is different for each species of wood. Overcooking changes the color of the log, while undercooking results in rough or uneven cutting of the veneer. Mill workers, aided by computers, adjust the temperature and cooking time until the wood cells are softened. This makes it possible to slice veneer from the log. After the cooking process, the logs move to a “slicing” or “peeling” area. The *slicing* method, the most commonly used in Pennsylvania



The purpose of veneer is to cover a less attractive or less valuable product, such as particle board.

The step-by-step process of making veneer



nia, involves moving a log across a knife to produce individual slices of veneer. Sliced veneer has a more attractive grain pattern and is generally used on valuable furniture and cabinetry.

The *peeling* method uses a rotary lathe, where the log turns against a knife and veneer peels off the log. This process is like unrolling toilet paper. The thin veneer comes

off the log in a continuous sheet. It is called *rotary* cut veneer.

Initially, both sliced and peeled veneer are high in moisture. They

need to be dried to prevent splitting, twisting, and cracking. A stainless steel screen carries the veneer through a large dryer. The temperature,

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humidity level, and speed of the dryer determine how tender and flat the veneer is after drying. Once dried, clippers trim the edges and any splits from the ends of the veneer pieces.

A NATURAL PRODUCT

Sliced veneer is often edge-glued and spliced together to make larger sheets. Plywood, door, and furniture companies use these *spliced faces* to cover other materials and make the final product more attractive. Rotary cut or peeled veneer is often made into plywood. Plywood is made of several

Not all wood is cut out to be veneer



Veneer is usually made from the "highest quality" logs. Defects and imperfections such as knots and decay (above) make veneer unusable.

sheets of glued veneer pressed or laminated together. Plywood made from peeled softwood veneer is

often covered with sliced hardwood veneer to make it more attractive. Rotary cut veneer may also cover kitchen cabinets, vanities, curved windows, and chairs.

Because veneer is so popular, there are many kinds of *artificial veneer*. Artificial veneer is anything that attempts to look like real wood veneer but is not. Examples of artificial veneer can be found on desks where a pressed board or plywood product has a picture of veneer glued on it and then covered with a layer of plastic or vinyl. Other products may have a veneer pattern actually molded into the pressed wood itself. These treatments increase the value of the product, but they are not as valuable as a real hardwood veneer finish.

Hardwood veneer is all-natural. It is made from the highest quality logs cut in the forest. It is a beautiful and useful forest product.

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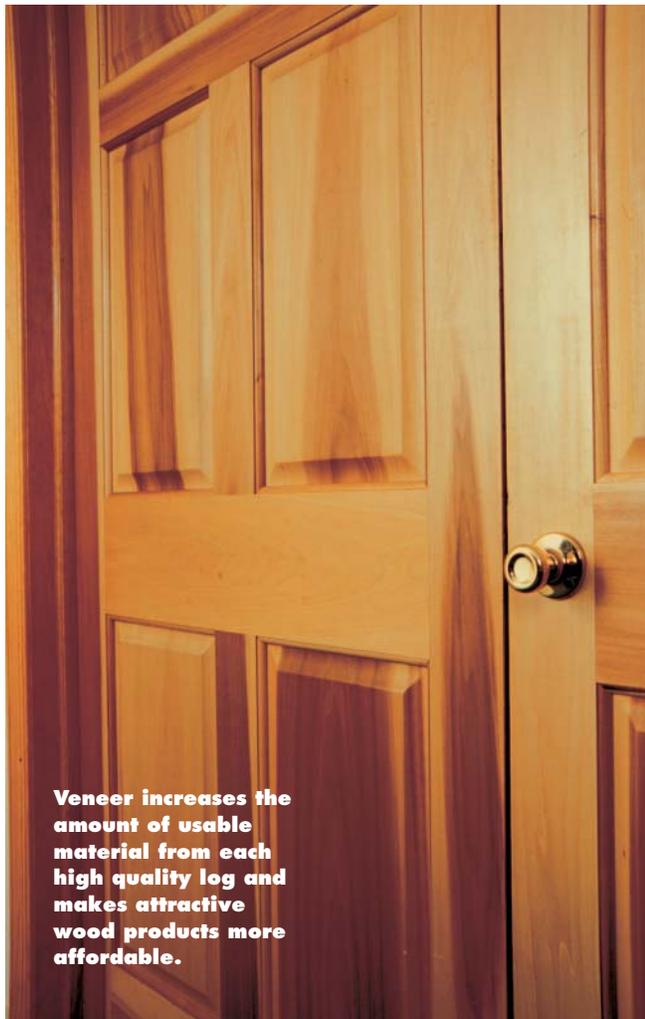
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Veneer increases the amount of usable material from each high quality log and makes attractive wood products more affordable.