

HPL WOODGRAINS vs. VENEER

WHITE PAPER

October 2016

Manufacturers of cabinets, millwork, doors, and wall panels can distinguish themselves with:

- High fashion
- High performance
- Environmentally friendly products
- Premium positioning, and
- The best service

HPL may just be the answer.

Fashion

Veneers may seem to offer a wide variety of color/species combinations, but in reality you are often limited by access to available product and stain line capacities.

Some species are often limited to tree farms with mature available trees. This is even more true when designers require exotic or weathered looks that have even less availability.



Additionally, the ability to choose a stain and to manufacture it consistently over time is a challenge across multiple industries (cabinets, furniture, millwork, doors). It is this aspect of product development using wood products that limits companies on how many looks they can introduce.



When it comes to wood looks, Wilsonart Laminate has a deep range of designs, colors, and textures that are equal or better in terms of finished product.

In 2015, Wilsonart sold more than 200 different patterns across a range of styles:

- Classics: maple, cherry, oak, walnut, and elm
- Exotics: teak, zebrawood, and bamboo
- Esoteric looks: wood planking, milk paint finish, antiqued, weathered, distressed, and reclaimed designs
- Custom designs for special projects or a differentiated product line

Customers can choose not only the species, but also the gloss level, texture, and sheen that matches the look they want in their finished project or product.

Wilsonart manufacturing and product innovations assure consistency from sheet to sheet. A panel that you create today will look like a panel you order 10 years from now because of the refined process, deep supplier relationships, and manufacturing quality controls that make Wilsonart stand apart from the crowd of laminate, veneer, and wood producers around the world.



HPL WOODGRAINS vs. VENEER

Performance

The laminate category itself is proof that innovators can improve upon products that have been around for generations. Over the past 60 years, Wilsonart has continued to create products that have great looks and provide performance characteristics that are not available from wood or wood veneers.

- Laminate has 10-12x better wear performance than wood veneer based on NEMA/ISO 4586 test results
- Laminate has 4-5x better impact resistance
- Laminate has 2-4x better scratch resistance
- Laminate has significantly better scuff, heat, and high temp resistance
- Laminate is easier to clean and maintain making it a more hygienic surfacing choice over veneers and woods



Performance Comparison

Critical Comparisons		Wilsonart Woodgrains (HGP With AEON)	Wood Veneer Light Woodgrain	Wood Veneer Dark Woodgrain
Wear Resistance*		~ 1,200	~ 150	~ 100
Ball Impact*		~ 40"	~ 35"	~ 25"
Denting - Ball Impact**		~ 40"	< 5"	< 5"
Dart Impact*		> 30"	< 10"	< 5"
Scratch Resistance* (Diamond)		~ 4.0 N	~ 1.0 N	~ 1.0 N
Scratch Resistance** (Pencil)		9H - No Effect	HB - Scratch/Dent	HB - Scratch/Dent
Scuff Resistance**		Slight Effect	Severe Effect	Severe Effect
Boiling Water Resistance*		No Effect	Severe Effect	No Effect
High Temperature Resistance*		No Effect	Moderate Effect	Moderate Effect
Radiant Heat Resistance*	(Coil)	~ 125 sec.	~ 55 sec.	~ 65 sec.
	(Strip)	~ 230 sec.	~ 150 sec.	~ 200 sec.
Stain Resistance*	(1 - 10)	No Effect	Moderate Effect	Moderate Effect
	(11 - 15)	No Effect	No Effect	No Effect
Cleanability Rating*		~ 9	~ 19	~ 17
Light Resistance* (Fade)		Slight to No Effect	Moderate Effect	Moderate Effect
Protective Surface Layer		Melamine	Acrylic or Acrylic/Epoxy Blend	Acrylic or Acrylic/Epoxy Blend
Conclusion		Best	Better	Good

Good
Better
Best

*NEMA LD-3 Test
**Internal Test

HPL WOODGRAINS vs. VENEER

WHITE PAPER

October 2016

Environmental

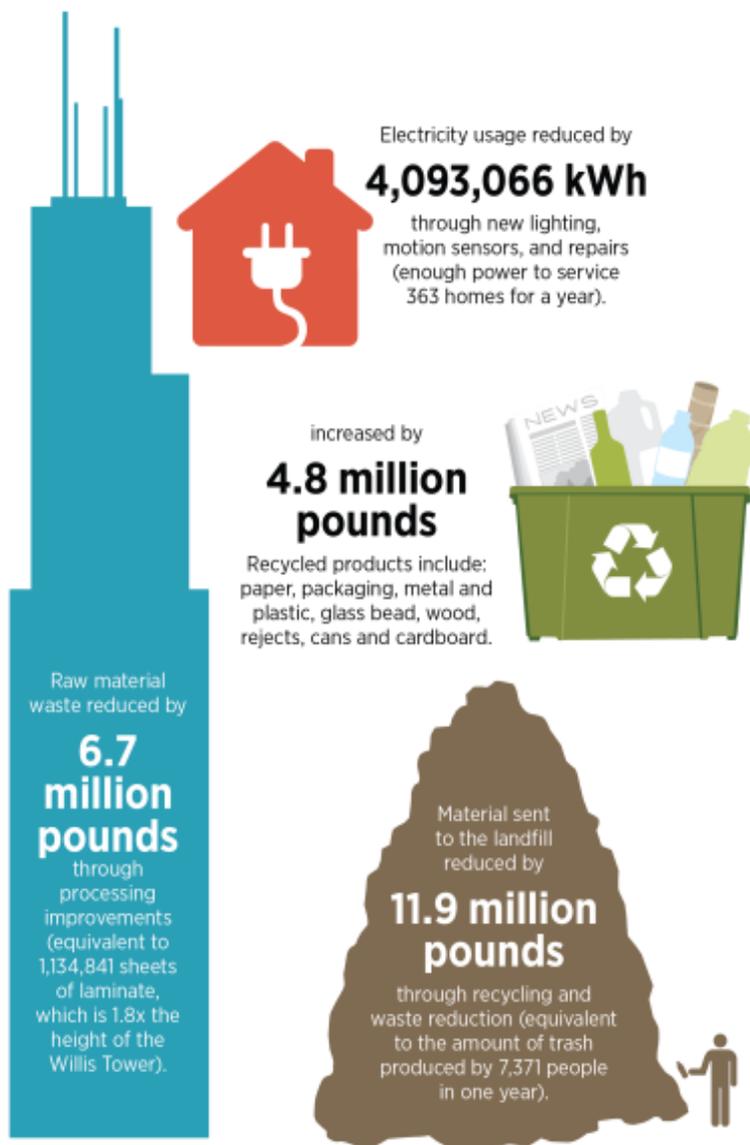
The wood industry proudly promotes environmental awareness through compliance with FSC, LEED, CARB, and Sustainable Forest practices.

However, despite compliance with ever-strengthening restrictions, harvesting practices continue to severely damage the native tree populations around the world. One study has found that no country in the world has more than 7% of its original tree density remaining. Some of these forests have been decimated to make room for tree farms!

Wilsonart understands our role in responsible manufacturing and sourcing.

- Wilsonart believes in responsible forestry and was the first North American laminate supplier to achieve Forest Stewardship Council (FSC) Chain of Custody Certification. Additionally, Wilsonart laminate contains 70% FSC Certified wood fiber- byproducts
- Wilsonart is concerned with indoor air quality and has achieved UL GREENGUARD GOLD Certification for low chemical emissions on all laminate products
- Wilsonart is active in industry and community involvement with the US Green Building Council, United Way, Baylor Scott and White, Keep America Beautiful, and employee managed community philanthropy.

When it comes to impact on the environment, laminate stands tall against wood and wood veneers, and more importantly, Wilsonart stands proud as a leader in making sure that environmental responsibility is an important aspect of how we do business.



HPL WOODGRAINS vs. VENEER

Warranty Concerns with Veneer Products

- Natural variations in color, grain, or texture of wood and other covering materials are not covered.
- Variations occurring in surface materials (e.g., colorfastness, matching grains, textures and colors across dissimilar substrates and lots).
- Veneer is a natural material that will visibly change over time; it is recommended that all components are ordered at the same time.
- Wearing or cuts to covering materials is not covered.
- The matching of colors, grains, or textures of natural materials is not covered.
- Damage, marking, or staining of veneer surfaces due to contact with rubber or similar compounds; damage from sharp objects or imprinting from writing instruments, or prolonged exposure to direct sunlight.
- Discoloration from contact with liquids or change in color or texture caused by application of finishes (flame proofing, stain resistance)
- Several times a year the veneer finish may be polished with Guardsman® wax-free furniture polish to clean, restore, and protect veneer surfaces.



Color Change in Veneer and Solid Wood Furniture



Color change is a natural phenomenon of wood. Woods change color with prolonged exposure to ultraviolet light coming from windows and fluorescent lighting. Cherry wood veneer color changes are most rapid, taking on a darker, "golden" tone with age. Walnut will lighten with "golden" hues. Oak will darken and yellow slightly. As a rule, lighter colored finishes are more apt to show these color changes compared to darker finishes. Darker colors act as a "sun block" and reduce the aging effect. It is recommended that for the first year, you occasionally move the items kept on your desk, such as desk pads, telephones and in/out baskets, to a different location on the surface to allow uniform amounts of light to reach all surface areas. This will help prevent light or dark spots from occurring. All wood manufacturers have the same issues, so the same care can be applied to any veneer product.

HPL WOODGRAINS vs. VENEER

WHITE PAPER

October 2016

Preventative Care for Wood Furniture

- Keep furniture away from heating and air conditioning sources to prevent loss of moisture in the wood.
- Use a felt backing on lamps and other accessories to prevent scratching and gouging.
- Use place mats under plates and hot pads under serving dishes when serving hot food.
- Put houseplants in drip-proof pots and keep foliage from touching furniture surfaces to prevent moisture damage to wood.
- Always use a protective pad when using your furniture as a writing surface.
- Use coasters under both hot and cold drinks.
- Blot up spills promptly. Water left over a prolonged period of time will cause white spots in the finish. Alcohol, perfume, after-shaves lotions and medicines can cause severe furniture damage.
- Do not place synthetic rubber or plastic items directly on wood to avoid a chemical change to furniture finish.
- Do not leave newspapers or magazines lying on wood furniture due to possible ink "bleeding" into the furniture finish and wood.
- Avoid using nail polish remover or other harsh household products near wood furniture to avoid possible damage from spills or splashes.
- Rotate the placement of accessories on wood furniture surfaces from time to time to redistribute wear patterns.
- Dust in the direction of the grain with a clean, soft, lint-free cloth. If desired, lightly polish your furniture in the direction of the grain with a clean, soft, lint-free cloth.

Caring for laminate

- Occasionally wipe the surface with a slightly dampened cloth, moving the cloth with the grain.
- Be careful not to drag heavy, sharp objects over the surface.

Caring for veneer

- Wipe the surfaces once per week using a clean, slightly, water-dampened soft cloth. Always wipe in the direction of the grain.
- Make sure the wood is not exposed to harsh solvents. We do not recommend commercial products containing high amount of wax or silicon as they can leave a residue and may alter the appearance of the wood over time.
- Clean up spills right away.
- Use a desk pad to eliminate damage from writing instruments.
- Use felt or cork pads on the bottom of contact points of accessory items to avoid scratching the finish.
- Avoid placing water glasses or hot coffee cups on the surface.

HPL WOODGRAINS vs. VENEER

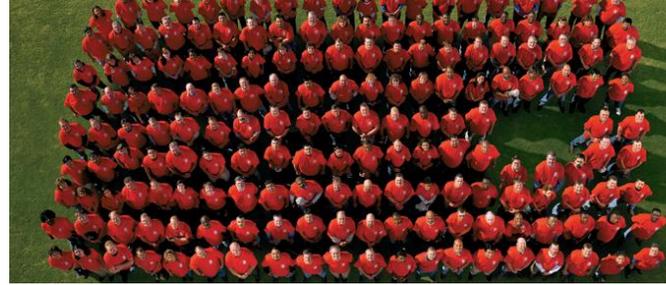
WHITE PAPER

October 2016

Service

Wilsonart's reputation of providing service that customers can count on for their fashion, product availability, innovation, and product performance needs is legendary.

- Wilsonart is a global company with more than 4,500 employees, 12 manufacturing locations, and service in 90+ countries.
- Wilsonart is the #1 or #2 laminate manufacturer in North America, Germany, UK, France, and China.
- In North America, Wilsonart provides best-in-class service from 14 company owned locations where our customers have immediate access to the products they need and the people that can solve their problems.
- Additionally, Wilsonart has teamed with 65 of the best distribution partners in North America in over 125 locations to provide local support and service in the areas where our customers need them.
- Wilsonart owns their own fleet of trucks that allow us to deliver our products with consistent on-time performance.



Few companies, in any industry, can match the dedication to customer service and customer loyalty that Wilsonart has cultivated and nurtured over the last 6 decades.