

Reflect Veneer Casegoods

Product and Environmental Information



Product: Reflect Veneer Casegoods

Contents: Product Construction
LEED – CI 2.0 Contribution

Date: October 29, 2009

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Product Description: Combining traditional elements, modularity and wire management, Reflect makes an ideal choice for today's executive office.

Tops: The Reflect tops feature 3 ply balanced construction with a traditional edge profile.

Veneer: The veneer is flat sliced, slip matched cherry or maple. Veneers are selectively matched on all surfaces to provide proper consistency.

Chassis Construction: Reflect is constructed with tenon and groove joints and solid hardwood parting rails. Units are reinforced with hardwood cleats that are glued and screwed to end panels and modesty panels. All base units have adjustable leveling glides to compensate for uneven floor surfaces.

Drawer Construction: Four sided vinyl wrapped box with drawer fronts attached separately. Drawer fronts are slip matched cherry or maple veneer.

File Drawers: File drawers ship with a filing system. Letter width file drawers accommodate letter or legal filing.

Locking: Pedestal locking is standard on desks, credenzas and returns.

Drawer Hardware: Three hardware styles are available in matte chrome, matte black or antique brass finishes. Specify style and finish when ordering.

Options: Reflect veneer casegood door fronts and pedestal backs are available with no molding, Parliament molding or Westminster molding. See the Paoli Casegoods Pricer for specification details.

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Product Environmental Information

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Paoli products can contribute directly to individual LEED points or they can contribute indirectly to meet the overall intent of the program. The following information is for directional use in project certification.

Category	Available Pts	Credit	Description
Energy & Atmosphere:	1-10 Points	EA Credit 1.1	Optimize Energy Performance Paoli casegoods can be specified with energy efficient task lighting which can assist in energy usage reduction.
Materials & Resources:	1 Point	EA Credit 2.1	Construction Waste Management Divert 50% from Landfill Paoli's casegood packaging materials are 100% recyclable.
	1Point	EA Credit 2.2	Construction Waste Management Divert 75% from Landfill Paoli's casegood packaging materials are 100% recyclable.
	1 Point	MR Credit 3.3	Resource Reuse, 30% Furniture & Furnishings Paoli's Reflect Veneer Casegood products are covered by a Limited Lifetime Warranty and available in reconfigurable, modular models making them reusable on many building projects which can contribute to this point for future projects.
	1 Point	MR Credit 4.1	Recycled Content: 10% (Post-consumer + ½ Pre-consumer) Reflect Veneer Casegoods recycled content: 2.67% post-consumer, 84.31% post-industrial. Total Reflect Veneer Casegoods LEED contribution = 45%

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Category	Available Pts	Credit	Description
Materials & Resources:	1 Point	MR Credit 4.2	Recycled Content: 20% (Post-consumer + ½ Pre-consumer) Reflect Veneer Casegoods recycled content: 2.67% post-consumer, 84.31% post-industrial. Total Reflect Veneer Casegoods LEED contribution = 45%
	1 Point	MR Credit 5.1	Regional Materials, 20% Manufactured Regionally Reflect Veneer Casegoods may contribute to this point depending on the project location. Reflect Veneer Casegoods are manufactured in Orleans, IN
Indoor Environmental Quality:	1 Point	EQ Credit 6.1	Controllability of Systems, Lighting Paoli accessory task lighting can contribute to this credit by enabling occupant adjustments

Paoli Environmental Data Sheet For Office Furniture

Section 1. Identity			
Product:	Reflect Veneer Series		
Manufacturer:	Paoli, Inc. 201 East Martin Street Orleans, Indiana 47452		
General Contact:	Customer Support Department 1-800-457-7415 http://www.Paoli.com		
Technical Contact:	Rick Rimer (812)865-7140 rimer@paoli.com		
Note: This example is intended to be typical and representative of all Reflect veneer casegoods in construction, materials and processes. It is based on a 36" x 72" double pedestal Reflect veneer desk. Design and edge treatments are specified in product catalogs and pricers.			
Section 2. Major Material Description			
Material	Percentage by Weight	Recycled Content	End of Life Management
Steel	10.7%	25% PC	Recycle
Particle Board (includes panels laminated with high pressure or melamine surfaces)	21.87%	99% PI	Recycle where possible Landfill if necessary
Medium Density Fiber Board (MDF) (includes panels laminated with high pressure or melamine surfaces)	63.29%	99% PI	Recycle where possible Landfill if necessary
Plastic	.61%	NA	Recycle where possible
Wood	3.53%	NA.	Recycle
Corrugated Packaging	NA	74% PC ave	Recycle
Inputs from LEED – CI MR 4.1 & 4.2 credits Packaging	NA	2.67% Post Consumer 84.31% Post Industrial	RC Value factor = 0.45 ³
Comments:			
<ol style="list-style-type: none"> 1. PAOLI complies with the Federal Trade Commission's Part 260 <i>Guide for the Use of Environmental Marketing Claims</i>. 2. Product recyclability depends on local programs. 3. Adding 50% of the post-industrial recycled content and 100% of the post-consumer recycled content and then dividing the resulting weight by the total weight of the product derives the value factor. Multiplying the value factor by the total purchase price of the product determines the product's contribution toward the Project's recycled content threshold. 			
Section 3. Process Description			
<ol style="list-style-type: none"> 1. Veneer is adhered to particle board or medium density fiber board with a PVA adhesive. 2. Top edges are internal wood edge band finished with Paoli's Tech-Age catalyzed varnish. 3. Drawer boxes are English dovetail construction, assembled with glue. 4. Components are assembled using cleat construction. 5. Unit is placed in a corrugated carton for shipment to the customer 			
Section 4. Indoor Air Emissions			
Test Methodology: N/A	Test Location: N/A		Date: N/A
Indoor Air Quality Certification: No			
Standard	Compound	Criteria	Acceptable
BIFMA X7.1-2007	TVOC	0.50 mg/m ³	N/A
	Formaldehyde	<50 ppb	N/A
	Total Aldehydes	<100 ppb	N/A
	4-phenylcyclohexene	0.00650 mg/m ³	N/A
Title VI of the 1990 Clean Air Act Amendments. (CFCs & HCFCs)	This product does not contain and is not manufactured with ozone depleting chemicals.		
U.S. Occupational Safety & Health Administration (OSHA)	Formaldehyde	<0.10 ppm	N/A
World Health Organization (WHO)	Formaldehyde	<0.10 ppm	N/A
Green Building Rating System for Commercial	TVOC	≤0.50 mg/m ³	N/A

Interiors, Version 2.0, Dec. 2005	Formaldehyde	≤50 ppb	N/A
	Total Aldehydes	≤100 ppb	N/A
	4-phenylcyclohexene	≤0.0065 mg/m ³	N/A

Notes: Additional data may be available upon request.
OSHA – (29 CFR) 1910.1048

Section 5. In Service Maintenance Instructions

General Care

1. Dust all surfaces frequently with a clean, soft, damp cloth, moving the cloth with the grain.
2. Lift all objects to move them, never drag them across the finished surface.
3. For cleaning, a spray cleaner such as “409 Glass Cleaner” or “Glass Plus” and a water dampened cloth may be used to remove stubborn stains.

Section 6. Non-Obsolescence Statement

Paoli Inc consists of both the Paoli Brand and the Whitehall collection. Paoli Inc warrants it’s products to be free from defects in material and workmanship for as long as the original purchaser owns it. Paoli will at it’s discretion repair or replace with comparable product, free of charge, any Paoli product or component manufactured after July 7, 2008 that fails under normal commercial use.¹¹

Limitations involving materials and components

Some natural variations occurring in wood, leather and other natural materials are inherent to their character and not considered defects. Paoli Inc. does not warrant the color-fastness or matching of colors, grains, textures of these materials. Additionally a customer own material (COM) selected by, and used at the request of a user is not warranted. The material and components listed below are covered according to the following schedule from the date of sale.

- Seating controls, wood seating and electrical components (lamps and ballasts are not covered) – Ten Years
- Glides, pneumatic cylinders, casters and polymer based components, foam, laminates, veneer finishes – Five Years
- Upholstery fabric – One Year.

Seating Usage

Normal commercial office use for seating is defined as the equivalent of a single shift, forty (40) hour workweek. Paoli Inc product used in excess of a single shift will be prorated for warranty purposes.

Exclusions

This warranty does not apply to:

- Normal wear and tear over the course of ownership
- Modifications or attachments not approved by Paoli Inc.

To the extent allowed by law, Paoli makes no other warranty, either express or implied, including any warranty of merchantability or fitness for a particular purpose. Paoli will not be liable for any consequential or incidental damages.

This Warranty applies only to products sold within the United States and the Commonwealth of Canada.

Your Paoli Dealer is our mutual partner in supporting your warranty requests. To obtain service under this warranty please contact your Paoli Dealer.

Section 7. Manufacturer Commitment

Vision Statement	Yes. Encompasses sustainability in social, economic practices. Encourages and commits financial resources to community involvement.
Environmental Policy	Yes. Generally follows the Valdez Principals.
Environmental Management Program	Yes. Integrated into mainstream manufacturing. Strong emphasis on environmental consideration during changes in material and processes. Generally aligned with ISO 14001 but is not ISO Certified.
Waste Minimization	Yes. Focus is broad based elimination of waste in every form.
Recycling Program	Yes. Office and manufacturing plus ongoing educational out-reach programs. Strong emphasis on “pre-cycling”.
Audits	Yes. Monthly self audit program implemented through the Environmental Management training process. Internal audits are conducted by formal procedure. EHS program is periodically audited by outside consultant.

Section 8. Applicable Programs and Ratings

Program	Applicability / Standard	Rating
ANSI/BIFMA	BIFMA 5.5 2008	Pass
State of California	CARB 93120.2	Phase I Compliant
LEED for Commercial Interiors v 2.1 June, 2002	Section Materials and Resources Indoor Environmental Quality	Credit – RC Value factor =.45 ¹

Environmental Statement

Life Cycle

Paoli products are built to last. They are developed to be environmentally neutral in their intended use and rigorously tested to ensure they surpass industry durability standards. We build products that will have a long, useful life span; they are not designed to be disposable and replaced multiple times.

In commercial office environments, the demands of the furniture include heavy use, limited maintenance and maximum flexibility. Each design is carefully considered for structure, strength, and durability to meet client expectations. These elements are critical to a long product lifecycle and reduced landfill waste.

Construction

Wood

Paoli furniture is constructed maximizing utilization of wood that results in superior strength and enhanced use of the wood. American hardwood (cherry, sycamore, maple, and beech) has been a renewable resource since the founding of our nation and is the main source of Paoli's building material. The demand for these species and their economic viability has driven continual reforestation. Our obligation is to maximize the benefit from sustainable forests by establishing "best practice" manufacturing processes.

Work Surfaces

A wood veneer inset is a natural wood product that provides a beautiful wood surface. Paoli utilizes this construction method to support the efficient use of hardwood material. A thin layer of hardwood is glued to a recycled wood core and surrounded with a solid wood edge. The finished product is a stable, long lasting surface with all of the character of wood.

Just In Time Manufacturing (JITM)

Every Paoli product is built to client specifications once an order has been received. Projects often call for custom or modified products, and Paoli believes our customers deserve our utmost attention to every specific need. We do not produce or warehouse inventory, which creates unneeded products, depletes resources and creates waste. Paoli believes the environment, our community and our clients deserve this attention which produces a more satisfying result overall for everyone.

Air Quality

Finishing

Paoli is committed to playing its part in preserving clean air by reducing air emissions to the lowest possible levels. Product finishing provides the greatest opportunity to make a positive impact concerning air quality. By researching alternative methods, we have been able to eliminate processes that contribute to air emissions. For example, by researching alternative methods, we have eliminated the wipe step which reduces emissions as well as waste from contaminated rags. The company has also invested in switching from airless application guns to air assisted airless guns for all sealers and topcoats. This results in better transfer efficiency of the material and therefore less air emissions. In addition, our re-formulated clear coat finish material increases solid content and limits VOC emissions.

Upholstery

Paoli utilizes poly foam in the production of upholstery. This poly foam is chlorofluorocarbon (CFC) free and emits no VOC's.

ENVIRONMENT POLICY

Paoli Inc.

Paoli is committed to a strong environmental management program based on environmental sustainability. Because we recognize the potential impact our products and processes have on the environment, we are passionate about integrating environmental stewardship and sustainability into our corporate culture.



We will drive our actions in support of this policy by:

- Seeking to use renewable materials and processes whenever possible. These materials and processes are the foundation of our product lines and meet the needs of our clients and the environment. By using renewable hardwoods and other natural materials, integrating recycled materials into our processes when possible and manufacturing a strong product built to last, Paoli supports our dual mission to serve our customers' needs while improving the environment.
- Striving to meet or exceed industry environmental standards and regulations.
- Pledging our resources to minimize our impact on the environment through Pollution Prevention. Minimization of emissions and waste generated and reduction of the consumption of energy, water and raw materials are the goals of Paoli's Pollution Prevention Program.
- Committing our research and development capabilities to investigate new materials and environmentally friendly manufacturing processes to secure ecologically responsible alternatives to traditional methods.
- Minimizing our environmental impact through continuous improvement of our equipment and process management capabilities.

The guiding principals of Paoli's Environmental Policy are to:

Protect and Improve the Environment for Future Generations

Recycling

The ever increasing need for natural resources, and their diminishing supply, has made recycling one of the most important movements of our time. Paoli embraces recycling in our daily procedures. Tons of material is diverted annually from landfills by utilizing reusable wood pallets, recycling steel banding and fluorescent lights, and implementing recycling programs for cardboard, mixed paper, plastic and aluminum. This diversion has been increased more than four times what used to be land-filled. Sawdust and scrap lumber collected from mill room operations is ground up and utilized in other products. Sawdust is given back to the land by first sending it to local farmers for use as animal bedding and then directly land applied.

Packaging

Limiting material use is a key factor in conserving the environment. Paoli is committed to this idea and utilizes packaging materials in a way that reduces bulk and weight.

Transportation

How Paoli transports product is just as important to us as our products. Transporters of Paoli furniture share and adhere to our own high standards and environmental commitment. Whenever possible, Paoli consolidates trucks for multiple orders to maximize fuel use and we strive to ensure that every truck leaving the facility has a full load. Paoli also enforces a "no idling" policy and all trucks are equipped with governors to control driving speeds.

Energy

Paoli strives to optimize energy in order to conserve valuable resources. While it is a cost savings for our company to research energy conservation methods, it is equally beneficial to the environment. We have installed a halogen oven for drying material. This innovative piece of equipment replaced a traditional convection oven. The new oven has a faster cycle time and cures more efficiently. This innovation also eliminated the use of natural gas as a fuel for curing our product. We have also replaced HID lighting with more efficient T8 bulbs. These modernized lights deliver more lumens while using about half the wattage of a traditional bulb resulting in an overall increase in efficiency of 60%.

LEAN Manufacturing

LEAN manufacturing is an integral part of the process at Paoli. Cellular manufacturing techniques we use bring human scale to process requirements. Working in cells, processes have to be human-friendly. This eliminates harmful solvents and reduces waste, improving environmental performance and business performance at same time. LEAN manufacturing at Paoli has resulted in significant reduction in floor space need for manufacturing resulting in less energy use.

Skills Training

Paoli realizes that one of the most important factors in our mission to reduce the impact we have on the environment is employee awareness. We strive for continuous improvement of the tasks performed by our employees by means of providing information, training, and involvement in environmental projects. In partnership with the Clean Manufacturing Technologies Institute at Purdue University our spray finish technicians are trained in proper spray technique, proper spray gun setup, how to reduce clean-up solvent waste, and ways to improve transfer efficiency. These are critical factors for helping keep our air clean. Employee awareness of key practices concerning environmental conservation ensures ongoing compliance and conservation throughout the company.

LEED™ Credits

Developed by the U.S. Green Building Council, the Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ encourages and accelerates global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria.

Paoli products may contribute to the following LEED™ credits:

Material and Resources

Credit 4.1 - Recycled Content,

10% (post-consumer + ½ pre-consumer)

Credit 4.2 - Recycled Content,

20% (post-consumer + ½ pre-consumer)

Credit 5.1 - Regional Materials,

10% Extracted, Processed & Manufactured Regionally

Credit 5.2 - Regional Materials,

20% Extracted, Processed & Manufactured Regionally



PAOLI™