

ASSA ABLOY, the global leader in door opening solutions

April, 2009

GPD-PC FSC

5-Ply Particle Core WDMA Extra Heavy Duty PC-5 FSC

Construction

Horizontal Edges:

- Top and bottom rails
- Bonded to core
- Structural composite lumber (SCL)
- 1" minimum after factory trim
- No additional blocking required for thru bolted closers
- Optional closer & lock blocks available

Vertical Edges:

- Matching Vertical Edges
- Bonded to core
- SCL laminated to a matching hardwood face (standard for Oak, Birch, and Maple)
- SCL laminated with a matching veneer edge band on veneers other than listed above as standard, with optional hardwood stile face available
- Maximum 20 minute fire rating.
- Meets UL 10b and UL 10c Category "B" requirements
- Option to UL 10c Category "A" that require no additional seal system

Core:

- Conforms to ANSI A208.1 (LD-2)
- Contains no added urea formaldehyde
- STC rating 30 operable with required seal system

Construction Grade:

- Performance: WDMA Extra Heavy Duty*
- Aesthetic: WDMA Premium Grade

Faces:

 Available in a variety of wood species along with MDO (Medium Density Overlay)

Veneer Grade:

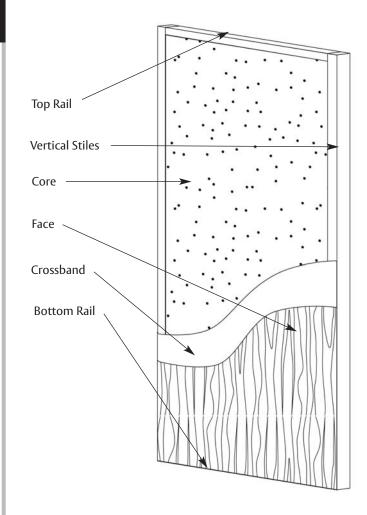
- Standard WDMA "A" Book and Running Match
- Slip, Balance Match, and Center Balance Match available upon request
- "AA" available upon request to meet AWI "Premium Grade" requirements

Adhesive:

- Doors constructed using Polyurethane Reactive (PUR) Adhesive technology

Finishes:

- Factory Finish meets or exceeds WDMA TR-6 and AWI 1500 standards
- Available in clear coat, 8 standard colors, and custom color match



Lifetime Warranty Standard

- MR Credit 4.1 10% Recycled Content
- MR Credit 4.2 20% Recycled Content
- MR Credit 7 Certified Wood (Chain of custody certification number SW-COC-003530)
- EQ Credit 4.4 Low Emitting Materials* (No added urea-formaldehyde)
 - * With optional urea-formaldehyde free skins. Contact factory for pricing, leadtime, and availability.

^{*}Optional blocking required to meet Extra Heavy Duty face screw holding standards.

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GPD-SLFSC

5-Ply Stave Lumber Core No Added Urea Formaldehyde WDMA Extra Heavy Duty SLC-5 FSC

Construction

Horizontal Edges:

- Top and bottom rails
- Bonded to core
- Structural composite lumber (SCL)
- 1" minimum after factory trim
- No additional blocking required for thru bolted closers

Vertical Edges:

- Matching Vertical Edges
- Bonded to core
- SCL laminated to a matching hardwood face (standard for Oak, Birch, and Maple)
- SCL laminated with a matching veneer edge band on veneers other than listed above as standard with optional hardwood stile face available
- Maximum 20 minute fire rating.
- Meets UL 10b and UL 10c Category "B" requirements
- Option to UL 10c Category "A" that require no additional seal system

Core:

- Stave lumber with staggered joints
- Contains no added Urea Formaldehyde

Construction Grade:

- Performance: WDMA Extra Heavy Duty
- Aesthetic: WDMA Premium Grade

Faces:

 Available in a variety of wood species along with MDO (Medium Density Overlay)

Veneer Grade:

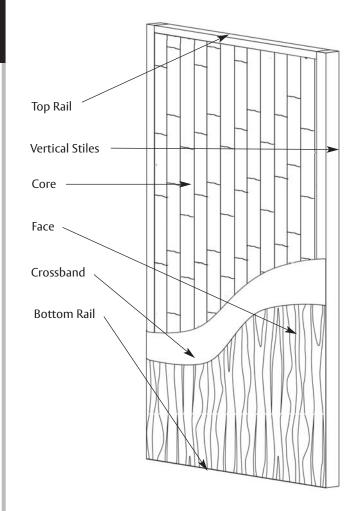
- Standard WDMA "A" Book and Running Match
- Slip, Balance Match, and Center Balance Match available upon request
- "AA" available upon request to meet AWI "Premium Grade" requirements

Adhesive:

- Doors constructed using Polyurethane Reactive (PUR) Adhesive technology

Finishes:

- Factory Finish meets or exceeds WDMA TR-6 and AWI 1500 standards
- Available in clear coat, 8 standard colors, and custom color match



Lifetime Warranty Standard

- MR Credit 7.0 Certified Wood (Chain of custody certification number SW-COC-003530)
- EQ Credit 4.4 Low Emitting Materials* (No Added Urea Formaldehyde)
- * With optional Urea Formaldehyde free skins.

 Contact factory for pricing, leadtime, and availablility.

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ASSA ABLOY, the global leader in door opening solutions

GPD-AP FSC

5-Ply Agrifiber Core No Added Urea Formaldehyde **WDMA Extra Heavy Duty** PC-5 FSC

Construction

Horizontal Edges:

- Top and bottom rails
- Bonded to core
- Structural composite lumber (SCL)
- 1" minimum after factory trim
- No additional blocking required for thru bolted closers
- Optional closer & lock blocks available

Vertical Edges:

- Matching Vertical Edges
- Bonded to core
- Laminated with a matching veneer edge band
- Maximum 20 minute fire rating.
- Meets UL 10b and UL 10c Category "B" requirements
 Option to UL 10c Category "A" that require no additional seal system

Core:

- Agrifiber
- Conforms to ANSI A208.1 (LD-1)
- Contains no added Urea Formaldehyde

Construction Grade:

- Performance: WDMA Extra Heavy Duty *
- Aesthetic: WDMA Premium Grade

Faces:

- Available in a variety of wood species along with MDO (Medium Density Overlay)

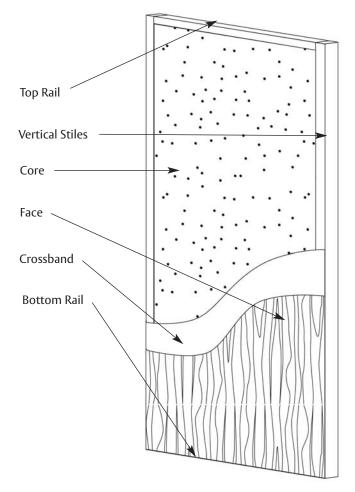
Veneer Grade:

- Standard WDMA "A" Book and Running Match
- Slip, Balance Match, and Center Balance Match available upon request
- "AA" available upon request to meet AWI "Premium Grade" requirements

- Doors constructed using Polyurethane Reactive (PUR) Adhesive technology

Finishes:

- Factory Finish meets or exceeds WDMA TR-6 and AWI 1500 standards
- Available in clear coat, 8 standard colors, and custom color match



Lifetime Warranty Standard

- MR Credit 4.1 10% Recycled Content
- MR Credit 4.2 20% Recycled Content
- MR Credit 5.1 10% Regional Materials
- MR Credit 5.2 20% Regional Materials
- MR Credit 6.0 Rapidly Renewable
- MR Credit 7.0 Certified Wood (Chain of custody certification number SW-COC-003530)
- EQ Credit 4.4 Low Emitting Materials* (No Added Urea Formaldehyde)

^{*}Optional blocking required to meet Extra Heavy Duty face screw holding standards.

^{*} With optional Urea Formaldehyde free skins. Contact factory for pricing, leadtime, and availablility.

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GPD-45 FSC

5-Ply Agrifiber Core No Added Urea Formaldehyde WDMA Extra Heavy Duty FD-45-5 FSC

Construction

Horizontal Edges:

- Top and bottom rails
- Bonded to core
- Structural composite lumber (SCL)
- 1" minimum after factory trim
- No additional blocking required for thru bolted closers
- Optional closer & lock blocks available

Vertical Edges:

- Matching Vertical Edges
- Bonded to core
- Laminated with a matching veneer edge band
- Maximum 45 minute fire rating
- Meets UL 10b and UL 10c Category "B" requirements
- Option to UL 10c Category "A" that require no additional seal system

Core:

- Agri-board
- Conforms to ANSI A208.1 (LD-2)
- Contains no added Urea Formaldehyde
- 250° temperature rise

Construction Grade:

- Performance: WDMA Extra Heavy Duty *
- Aesthetic: WDMA Premium Grade

Faces:

 Available in a variety of wood species along with MDO (Medium Density Overlay)

Veneer Grade:

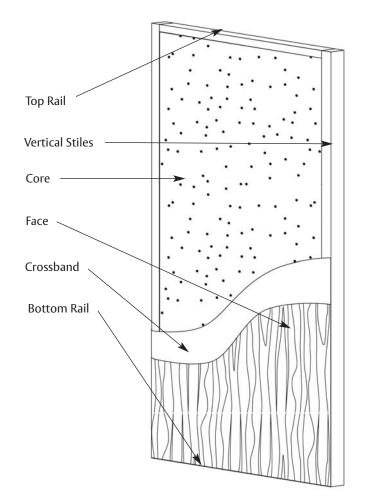
- Standard WDMA "A" Book and Running Match
- Slip, Balance Match, and Center Balance Match available upon request
- "AA" available upon request to meet AWI "Premium Grade" requirements

Adhesive:

- Doors constructed using Polyurethane Reactive (PUR) Adhesive technology

Finishes:

- Factory Finish meets or exceeds WDMA TR-6 and AWI 1500 standards
- Available in clear coat, 8 standard colors, and custom color match



Available in 4'0" x 8'0" maximum size Single swing only - no pairs

Lifetime Warranty Standard

- MR Credit 4.1 10% Recycled Content
- MR Credit 4.2 20% Recycled Content
- MR Credit 6.0 Rapidly Renewable
- MR Credit 7.0 Certified Wood (Chain of custody certification number SW-COC-003530)
- EQ Credit 4.4 Low Emitting Materials * (No Added Urea Formaldehyde)

^{*}Optional blocking required to meet Extra Heavy Duty face screw holding standards.

^{*} With optional Urea Formaldehyde free skins. Contact factory for pricing, leadtime, and availablility.

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GPD-45/60 FSC

5-Ply Mineral Core WDMA Extra Heavy Duty FD 45-5 FD 60-5 FSC

Construction

Horizontal Edges:

- Top and bottom rails
- Bonded to core
- Fire resistive composite materials
- 1" minimum after factory trim
- No additional blocking required for thru bolted closers
- Optional closer & lock blocks available

Vertical Edges:

- Matching Vertical Edges
- Bonded to core
- Fire resistive composite stiles, laminated with a matching veneer edge band
- Maximum 45/60 minute fire rating.
- Meets UL 10b and UL 10c Category "B" requirements
- Option to UL 10c Category "A" that require no additional seal system

Core:

- Fire resistive core material
- 250° temperature rise

Construction Grade:

- Performance: WDMA Extra Heavy Duty *
- Aesthetic: WDMA Premium Grade

Faces:

- Available in a variety of wood species along with MDO (Medium Density Overlay)

Veneer Grade:

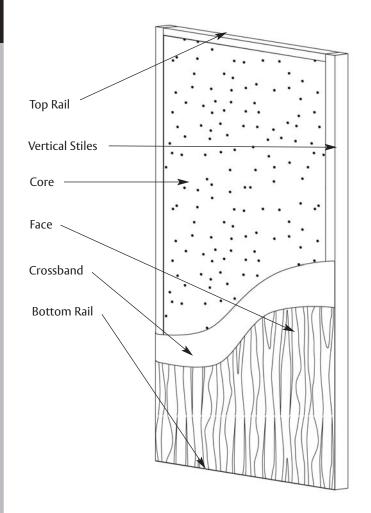
- Standard WDMA "A" Book and Running Match
- Slip, Balance Match, and Center Balance Match available upon request
- "AA" available upon request to meet AWI "Premium Grade" requirements

Adhesive:

 Doors constructed using Polyurethane Reactive (PUR) Adhesive technology

Finishes:

- Factory Finish meets or exceeds WDMA TR-6 and AWI 1500 standards
- Available in clear coat, 8 standard colors, and custom color match



Lifetime Warranty Standard

- MR Credit 7.0 Certified Wood (Chain of custody certification number SW-COC-003530)
- EQ Credit 4.4 Low Emitting Materials* (No Added Urea Formaldehyde)
- * With optional Urea Formaldehyde free skins.

 Contact factory for pricing, leadtime, and availablility.

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ASSA ABLOY, the global leader in door opening solutions

GPD-90 FSC

5-Ply Mineral Core **WDMA Extra Heavy Duty** FD 90-5 FSC

Construction

Horizontal Edges:

- Top and bottom rails
- Bonded to core
- Fire resistive composite material
- 1" minimum after factory trim
- No additional blocking required for thru bolted closers
- Optional closer & lock blocks available

Vertical Edges:

- Matching Vertical Edges
- Bonded to core
- Fire resistive composite material, laminated with a matching veneer edge band
- Maximum 90 minute fire rating.
- Meets UL 10b and UL 10c Category "B" requirements Option to UL 10c Category "A" that require no additional seal system

Core:

- Fire resistive core material
- 250° temperature rise

Construction Grade:

- Performance: WDMA Extra Heavy Duty *
- Aesthetic: WDMA Premium Grade

Faces:

- Available in a variety of wood species along with MDO (Medium Density Overlay)

Veneer Grade:

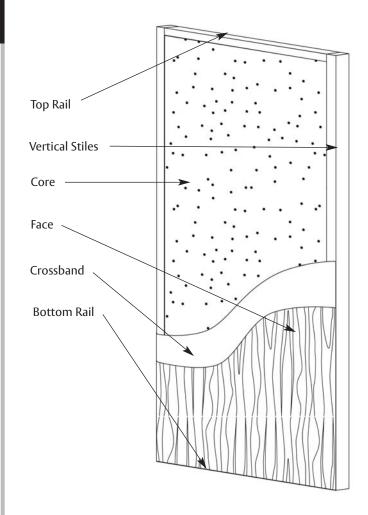
- Standard WDMA "A" Book and Running Match
- Slip, Balance Match, and Center Balance Match available upon request
- "AA" available upon request to meet AWI "Premium Grade" requirements

Adhesive:

- Doors constructed using Polyurethane Reactive (PUR) Adhesive technology

Finishes:

- Factory Finish meets or exceeds WDMA TR-6 and AWI 1500 standards
- Available in clear coat, 8 standard colors, and custom color match



Lifetime Warranty Standard

- MR Credit 7.0 Certified Wood (Chain of custody certification number SW-COC-003530)
- EQ Credit 4.4 Low Emitting Materials* (No Added Urea Formaldehyde)
- * With optional Urea Formaldehyde free skins. Contact factory for pricing, leadtime, and availablility.



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LEED Information
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U.S. Green Building Council LEED Rating Statement

Based on review of curretn LEED rating systems for applicability to architectural flush wood doors, GRAHAM states the following.

Applicable LEED Programs and Credits:

Materials and Resources: Recycled Content

Program	Checklist	Credit	Requirement
LEED-NC LEED-CS LEED-S LEED-CI	Materials and Resources	Recycled Content MR 4.1	Use materials with recycled content such that the sum of the post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 10% of the total values of the material in the project.
LEED-NC LEED-CS LEED-S LEED-CI	Materials and Resources	Recycled Content MR 4.2	Use materials with recycled content such that the sum of the post-consumer recycled content plus one-half of the pre-consumer content constitutes an additional 10% beyond MR Credit 4.1 (total of 20% based on cost) of the total values of the material in the project.

NC = New Construction CS = Core and Shell S = School CI = Commercial Interiors

Post-consumer material is defined as waste material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose.

Post-industrial (Pre-Consumer) recycled content refers to scraps that are left over during industrial or manufacturing processes and which are subsequently recycled and reused.

GRAHAM Product	Post-consumer Recycled Content	Pre-consumer Recycled Content*	Total LEED Recycled Content Percentage*
Particle Core (PC)	0	70%	35%
Particle Core (PC FSC)	0	40%	20%
Agrifiber Core (AP, AF)	0	70%	35%

^{*} Based on 1-3/4" X 3'0" X 7'0" Nominal Birch Door

Materials and Resources: Regional Materials

Program	Checklist	Credit	Requirement
LEED-NC	Materials	Regional	Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% (based on cost) of the total material value.
LEED-CS	and	Materials	
LEED-S	Resources	MR 5.1	
LEED-NC	Materials	Regional	Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for an additional 10% beyond MR Credit 5.1 (total of 20% based on cost) of the total material value.
LEED-CS	and	Materials	
LEED-S	Resources	MR 5.2	

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Materials and Resources: Regional Materials (cont.)

GRAHAM Product	Regional Material Information
Agri-Core (AP) FD 45 AP	70%* of the door is harvested and processed in Mankato, MN. Final assembly is in Mason City, IA

Program	Checklist	Credit	Requirement
LEED-CI	Materials and Resources	Regional Materials MR 5.1	Use a minimum of 20% of the combined value of construction and Division 12 (Furniture) materials and products that are manufactured* regionally within a radius of 500 miles.
		MIK 3.1	*Manufactured refers to the final assembly of components

GRAHAM Product	Regional Material Information
PC, EC, SL, AP, AP45, FD45, FD60, FD90	Final assembly is in Mason City, IA

Materials and Resources: Rapidly Renewable Materials

Program	Checklist	Credit	Requirement
LEED-NC LEED-S LEED-CI	Materials and Resources	Rapidly Renewable Materials MR 6	Use rapidly renewable building materials and products (made from plants that are typically harvested within a ten-year cycle or shorter) for 2.5% of total value of all building materials and products used in the project, based on cost.

GRAHAM AP and AP45 doors contain 70%* Wheat Core.

Materials and Resources: Certified Wood

Program	Checklist	Credit	Requirement
LEED-NC	Materials and Resources	Certified Wood MR 7	Use a minimum of 50% of wood-based materials and products, which are certified in accordance with the Forest Stewardship Council's (FSC) principles and criteria, for wood building components. These components include, but are not limited to, structural framing and general dimensional framing, flooring, sub-flooring, wood doors, and finishes.

^{*}Based on 1-3/4" x 3'0" x 7'0" Nominal BirchDoor





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Materials and Resources: Certified Wood (cont.)

GRAHAM Product	Wood Content of Door *	Wood That Is FSC Certified	Total LEED Certified Wood Percentage*
Particleboard Core (PC)	100%	78%	78%
Agrifiber Core (AP, AF)	21%	87%	18%
Stave Lumber Core (SL)	100%	78%	78%
Mineral Core (FD)	15%	82%	12%

^{*}Based on 1-3/4" x 3'0" x 7'0" Nominal Door

Indoor Environmental Quality: Low Emitting Materials

Program	Checklist	Credit	Requirement
LEED-NC LEED-CS LEED-CI	Indoor Environmental Quality		Composite wood and Agrifiber products used on the interior of the building shall contain no added urea-formaldehyde resins. Composite wood and Agrifiber products are defined as: particleboard, medium density fiberboard (MDF), plywood, wheat board, strawboard, panel substrates, and door core.

GRAHAM Product	Urea Formaldehyde Statement
Particleboard Core (PC) Engineered Core (EC) Stave Lumber Core (SL) Agrifiber Core (AP, AF) Mineral Core (FD)	GRAHAM Particleboard Core (PC), Engineered Core (EC), Stave Lumber Core (SL), Agrifiber Core (AP, FD 45 AP and AF) and Mineral Core (FD) doors do not contain any added Urea Formaldehyde ¹ . ¹ With optional Urea Formaldehyde Free Skins; contact Factory for pricing, lead-time, and availability.