



America's Favorite Garage Doors®

Technically Speaking

WOOD GARAGE DOORS

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Warm. Distinctive. Timeless.

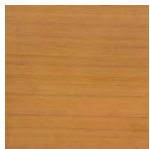
The qualities that make your home stand out are the qualities of a Clopay® wood door.

Wood Species and Materials



Redwood

Redwood offers a characteristic rich red to pink color throughout the heartwood, while sapwood is nearly white. Clopay constructs the doors using only the finest heartwood (as opposed to soft sapwood) for their doors, because it contains a grown-in resistance to decay and insects that is present throughout the entire piece of wood. Redwood contains tannic acid and requires the use of a tanning-blocking primer to avoid discoloration when it comes into contact with moisture. Clopay offers redwood doors in the Reserve™ Collection and Classic Line™ of raised panel doors.



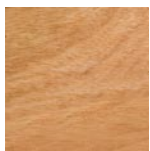
Western Red Cedar

Western Red Cedar withstands the natural elements making it an ideal wood species for a garage door in any climate. Suitable for staining and painting, natural cedar exhibits a wide variation of grain patterns and color, from nearly white to pink to dark brown, often within the same board. Cedar also contains tannic acid, and requires the use of a tanning-blocking primer to avoid discoloration when it comes into contact with moisture. Clopay offers cedar doors in the Reserve Collection and Classic Line of raised panel doors.



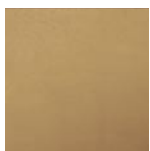
Hemlock

Hemlock is an economical wood choice for all types of homes. The unfinished wood is a yellowish white color with a consistent tone and grain. Hemlock is the strongest wood species in the Clopay line and it is inherently rot-resistant. However, hemlock has a low resistance to environmental change and will expand and contract within the panel of the door. In certain parts of the country wood WINDCODE® Doors are available only in Hemlock to meet specific building code specification due to its strength.



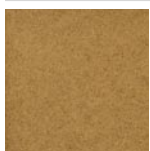
Luan Plywood

Luan Plywood is an economical alternative to wood panels that can be stained or painted. It is used in Clopay's Reserve™ Collection and as a panel material in the Classic Line. Luan is also known as imported hardwood.



MDO Plywood (Medium Density Overlay)

Medium Density Overlay Plywood or MDO is used as a grooved or smooth panel material on Clopay's semi-custom Reserve Collection doors. Rated for exterior use, MDO consists of a core material, overlaid with a pressed fiber material and weighs less than a full MDF, making it suitable for this particular application. The smooth surface is ideal for a grain-free, professional quality paint finish. MDO plywood cannot be stained.



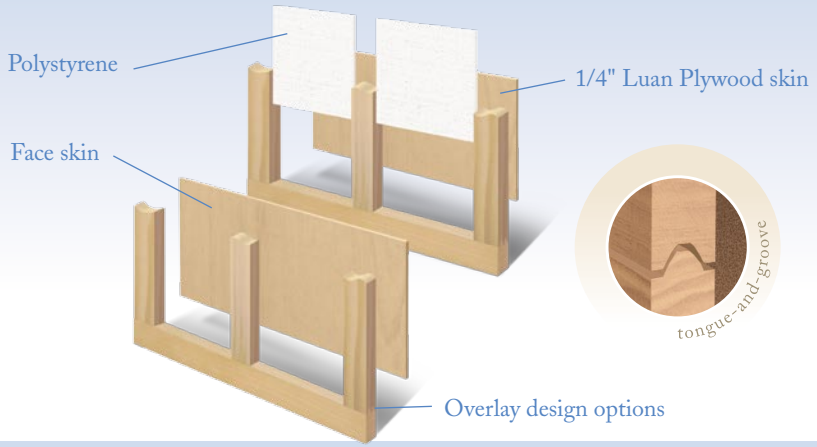
MDF (Medium Density Fiberboard) and Hardboard

Medium density fiberboard, or MDF, and hardboard, is a composite wood product made of wood fibers glued together with resin, heat, and pressure. It is appropriate for many applications because it is smooth, uniform, and will not warp. MDF is ideal for painting, but it cannot be stained. It is used as a raised panel material in Clopay's Classic Line.

Wood Door Construction

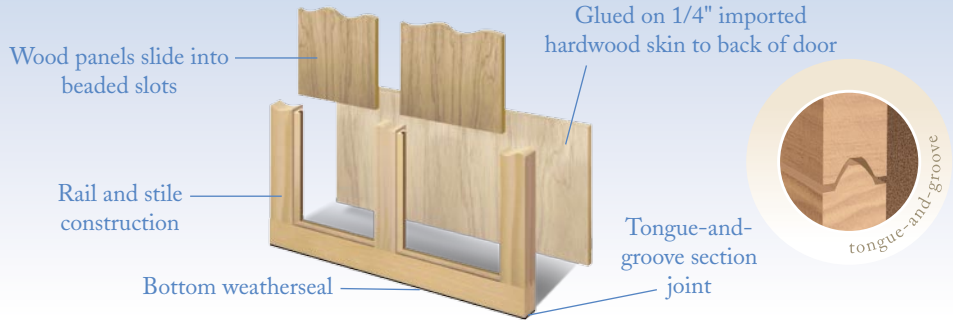
Reserve™ COLLECTION

Every Clopay Custom Reserve Collection door has a four-layer construction method and is up to three inches thick, providing excellent insulation and outstanding wear.



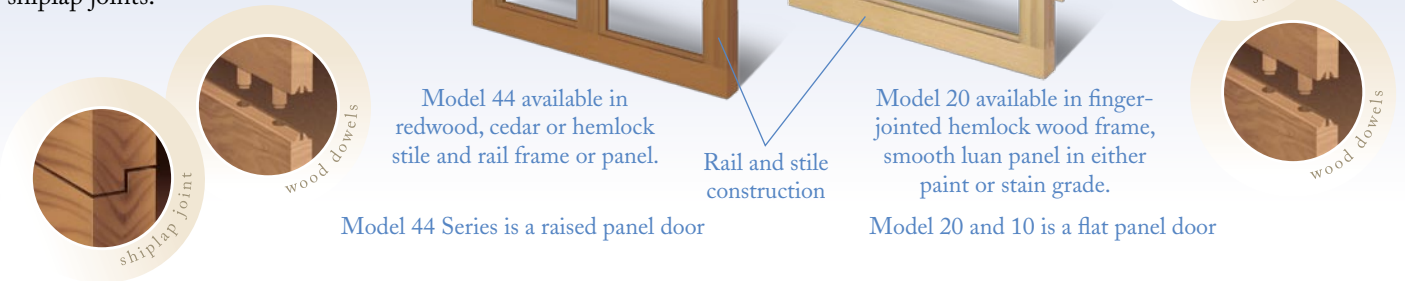
Reserve™ COLLECTION

All Semi-Custom Reserve Collection garage doors have a handcrafted two-layer construction method to ensure durability and reliability. Both paint grade and stain grade construction options are available.



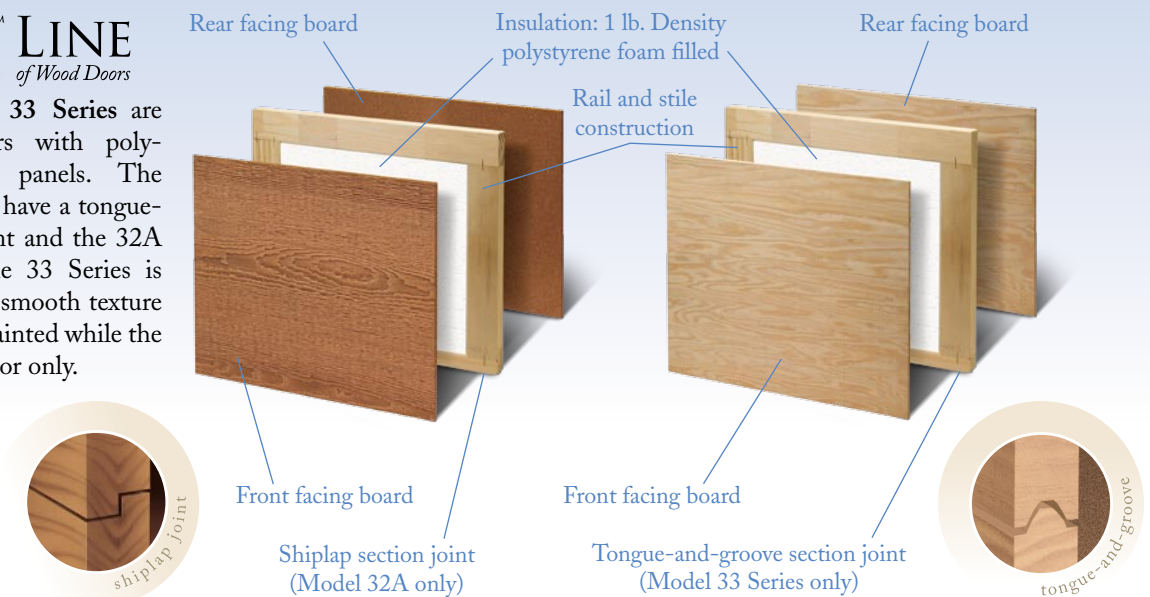
CLASSIC™ LINE of Wood Doors

The Model 44 Series Raised Panel and 20 and 10 Recessed Panel feature a stile and rail, wood dowel pin construction with shiplap joints.



CLASSIC™ LINE of Wood Doors

The Model 32A and 33 Series are Flush insulated doors with polystyrene foam filled panels. The Model 33 Series doors have a tongue-and-groove section joint and the 32A is a shiplap joint. The 33 Series is available in a rough or smooth texture and can be stained or painted while the 32A is a paint grade door only.





Model 44CC with long raised panel design, long Stockton Windows

Which Door Is Right for You?

There is a variety of materials to choose from when selecting a wood door. Use these helpful tips to guide your decision and ensure the long-lasting beauty of your Clopay wood door.

If you:

- **Live in a humid or rainy climate**, consider a cedar or redwood door for its built-in durability and resistance to varying climate conditions.
- **Plan to paint your door**, MDO or MDF panels offer a smooth, grain-free surface for a professional quality finish.
- **Want to match an existing stain**, a hemlock door is the best choice.
- **Live in a coastal region** and need a door wider than 10', the local building code requirements may mandate a door with a hemlock rail and stile construction.
- **Have or are installing redwood or cedar siding** on your home, consider a matching wood species for your door for a cohesive look.

Wood Material Selector Chart

Wood Species							
Wood Property	Hemlock	Cedar	Redwood	MDO	MDF	Luan	Hard-board
Color Consistency	***	*	**	***	***	*	***
Dimensional Stability ¹	*	**	**	***	**	***	**
Strength	***	**	**	N/A ²	N/A ²	N/A ²	N/A ²
Stainability	***	***	***	N/A	N/A	*	N/A
Weatherability	*	***	***	***	*	*	*

* Fair ** Good *** Excellent

¹Dimensional Stability refers to a material's resistance to expansion and contraction during environmental changes. A wood that expands and contracts to a greater degree (such as hemlock) has less dimensional stability. This property affects the panels of the door to a much greater degree than the rails and stiles.

²MDO and MDF are available only as a panel material, and do not contribute to the overall strength of the section.

How to Properly Finish Your Wood Garage Door

Preparation Work

Wood products can absorb moisture during shipping and storage. Upon receipt of your new wood door, do not leave or store it unfinished outside where it is susceptible to weathering. It is very important that all sections be free of moisture prior to finishing them. Wood doors should not be finished under humid conditions, and if the door is stored in this environment it could be ruined. The door sections must be properly finished prior to installing your wood garage door. Proper and complete finishing includes painting, staining or sealing all door section surfaces, sides, back, bottom, face and joints. Failure to do so will void the warranty. Differences in grain and color are indicative of natural wood and are not considered product defects. Due to these differences, there may be variations in stain penetration, even between two boards of the same species.

Painting Your Door

Step 1: Fill any gaps or voids within wood surfaces with a caulking compound that can be painted. (Do not use silicone as it cannot be painted.)

NOTE: For optimum long-lasting performance the spaces between the rails or stiles and the door panel should be caulked with a paintable caulk prior to painting the door. For plywood and hardboard panel doors, all (4) sides of each panel should be caulked (Fig. F-1). For hemlock, cedar, or redwood panel doors with woodgrain running horizontally, the bottom, left, and right sides of the panels should be caulked (Fig. F-2). For hemlock, cedar, or redwood panel doors with woodgrain running vertically, the top and bottom of the panels should be caulked (Fig. F-3).

Step 2: Clean all door surfaces with a stiff bristle brush to remove surface dirt, dust, and loose fibers.

Step 3: Before finish painting, the door section must be primed on all sides. Wood doors can be ordered either primed or unprimed (primed doors can be identified by the light-green finish). If your door is preprimed, proceed to step 4 below. Prime all section surfaces using a quality oil- or latex-based exterior primer, taking care to observe the primer manufacturer's application instructions, including recommendations on temperature and drying time. If you are painting a redwood or cedar door, the primer must contain a tannin blocker. **Using a primer on redwood and cedar doors that does not contain a tannin blocker could result in discoloration of the door after painting.**

Step 4: Finish paint all door section surfaces using a quality oil- or latex-based exterior paint. **The finish coat base should be the same as the primer coat base** (i.e. a latex-based finish paint is recommended for use with a latex-based primer, and an oil-based finish paint is recommended for use with an oil-based primer). **If your door is factory primed, a latex-based finish paint must be used.** Carefully follow all manufacturers' application instructions, including recommendations on temperature and drying time. A second top coat is recommended for optimum protection.

Staining Your Door

NOTE: The following door models cannot be stained: 10 (hardboard panels), any model ending in “G” or “P”. If your door is one of these models, refer to the previous painting instructions.

Step 1: Select a quality exterior oil-based penetrating stain (transparent, semitransparent, or solid) that is mildew resistant, UV resistant, and water repellent. Selection of a stain or finish that does not have these properties will void the warranty on the door. Do not use film-forming finishes, such as varnishes and urethanes, which do not penetrate the wood.

Step 2: Clean all door surfaces with a stiff bristle brush to remove surface dirt, dust, and loose fibers.

Step 3: Apply stain to all door section surfaces per stain manufacturer’s instructions, including recommendations on temperature and drying time.

Step 4: Fill any gaps or voids within wood surfaces with a clear silicone caulk.

NOTE: For optimum long-lasting performance on a stained door, the spaces between the rails or stiles and the door panel should be caulked with a clear silicone caulk after staining the door. For plywood and hardboard panel doors, all (4) sides of each panel should be caulked (Fig. F-1). For hemlock, cedar, or redwood panel doors with woodgrain running horizontally, the bottom, left, and right sides of the panels should be caulked (Fig. F-2). For hemlock, cedar, or redwood panel doors with woodgrain running vertically, the top and bottom of the panels should be caulked (Fig. F-3).

To avoid an uneven caulk line that could affect the appearance of the wood surrounding the panel joints, apply masking tape to both the panel and the stile or rail along the entire joint prior to caulking, leaving a gap of 1/8". Caulk along the joint, pressing the caulk into the joint and smoothing with finger. After entire bead is applied, remove tape (Fig. F-4).



Model 44RR with short raised panel design, long Horizon windows

Maintaining Your Painted or Stained Door

The two major contributing factors to the breakdown of the door’s finish (ultimately resulting in rotting and warpage) are sun and moisture. Annually examine your door for any signs of paint finish cracking or peeling or for any cracks in the wood door section. If the door is painted, the manufacturer recommends that it be repainted every 1-2 years to protect or seal the door against the elements. Failure to do so will result in voiding of the warranty. If the door is stained, reapply stain as needed per the stain manufacturer’s recommendations. In general, the clearer the stain, the more it will need to be reapplied.

Minor cracks in the wood should be repaired by filling in the area with an exterior grade caulk compound and then refinished following the previous instructions. Failure to repair cracks could potentially lead to more extensive section damage in the future. Gouges in the wood surface can be repaired with a wood filler. If extensive damage occurs to the door, the door manufacturer recommends that the door section be replaced. Failure to do so could result in damage or injury to property or individuals in the garage.

For more information on Clopay products, call 1-800-2CLOPAY (1-800-225-6729) or visit www.clopaydoor.com for your nearest Clopay Pro Series dealer. ©Clopay Building Products Company, Inc. 2006, A Griffon Company. Printed in U.S.A.

<p>FIG. F-1</p>	<p>Caulk all four sides</p> <p>Plywood or Hardboard Panel</p>	<p>Models 10 20 RH#P RH#G 44FP</p>
<p>FIG. F-2</p>	<p>Horizontal Woodgrain</p> <p>Caulk bottom, left, right</p>	<p>Models 44HR 44HH 44HC 44RR 44CC</p>
<p>FIG. F-3</p>	<p>Vertical Woodgrain</p> <p>Caulk top and bottom</p>	<p>Models RH#H RR#R RC#C</p>
<p>FIG. F-4</p>	<p>1/8" Gap for Caulk</p> <p>Masking Tape</p> <p>Panel</p> <p>Stile</p> <p>Rail</p>	