

Care and Handling Instructions

To Maintain Forte™ Opening Solutions Warranty, follow these Care and Handling Instructions.

Below is an excerpt from the Window and Door Manufacturers Association (ANSI/WDMA I.S. 1A for flush doors and ANSI/WDMA I.S. 6A for Stile and Rail Doors) as well as Architectural Woodwork Standards 2nd Edition (AWS).

Job Site Information for Architectural Wood Doors

To preserve the fine qualities of wood doors and a lifetime of superior service, proper storage, handling, finishing and installation is very important. This section is not intended to “Scope” the proper storage, handling or field finishing of doors received on the jobsite. The responsibility of properly preserving the quality of the architectural wood doors once shipped from the factory is the sole responsibility of the general contractor. The following guidance is provided to assist the general contractor to avoid damage that may occur to the architectural wood door due to improper storage, handling or field finishing. Contractors or subcontractors responsible for field finishing of wood architectural interior doors should consult the architect for the proper finish selection, color and sheen desired. Any damage as a result of improper storage, handling and finishing is not the responsibility of the manufacturer.

Dimensional Changes in Architectural Millwork

Wood has served as a successful material for structural and architectural millwork for centuries. When correctly designed and manufactured, wood products have demonstrated long-lasting esthetics and product integrity throughout the lifecycle of a building or structure. Most issues regarding dimensional problems in architectural wood are directly related to uncontrolled relative humidity. Wood is hygroscopic in nature and under normal use and conditions contains some moisture. The relative humidity in the atmosphere affects the gain or loss of moisture in wood. In high humidity, wood will absorb molecular moisture and swell, which will cause warping or dimensional increases of the components. In low humidity, wood will release molecular moisture and contract, which causes contraction of the wood fiber resulting in cracking or checking of the components.

Architectural wood doors are manufactured as designed using kiln dried wood components to an appropriate average moisture content. Subsequent dimensional changes in these wood components is and always has been an inherent natural property of wood. Improper storage or handling of the doors once they are shipped from the manufacturing facility resulting in these types of dimensional changes will not be considered product defects and are not the responsibility of the manufacturer. Not adhering to or deviating from the following guidelines could result in voiding the manufacturer’s warranty.

It is the responsibility of the contractor to review and comply with the manufacturer’s warranty in regards to the proper storage, handling and installation of the architectural wood door.

The following guidelines will help to maintain the high quality products supplied by wood door manufacturers.

Site Conditions

HVAC systems shall be installed and operable prior to the storage or installation of architectural doors. Do not subject interior doors to extremes of heat and/or humidity. Prolonged exposure may cause damage. Buildings should maintain a relative humidity level of 25% to 55% and a temperature between 50° F and 90° F. It’s recommended that site storage, staging and installation areas be monitored for temperature and humidity from delivery to substantial completion to verify warranty compliance. Once doors are installed, it is the responsibility of the building owner to maintain the relative humidity and temperature necessary to minimize the dimensional changes in the doors. Do not install door in buildings that have wet plaster or cement.

Handling Doors

Handle Forte Opening Solutions doors with clean canvas gloves. Bare hands leave finger marks and soil stains. Never drag one door across another. Carts and other equipment used to handle doors must be padded.

Inspecting Doors

THE INSTALLER MUST INSPECT ALL DOORS THOROUGHLY BEFORE INSTALLATION. Forte Opening Solutions does not warrant doors installed with obvious defects. On receipt and before forwarding, all doors should be inspected for freight damage. Any observed damage must be noted on the delivery receipt and Forte Opening Solutions notified immediately. Failure to follow this procedure may lead to claim denial by the shipper and/or carrier.

Storing Doors

Forte shipping package is not intended for storage.

Stack doors flat on carefully leveled supports. We recommend a support of three 2 x 4’s placed the full width of the doors (one in the center and one 12” from each end for regular sized doors) and covered with a sheet of plywood or heavy cardboard to protect the bottom door. The top door should be covered in a similar manner.

Keep doors clean and avoid discoloration by covering with an opaque material which does not permit light to penetrate. Covering must allow for air circulation. (Certain species including Cherry, Walnut and Mahogany are extremely sensitive to light and require extra protection.)

Fitting Doors

Jambs must be plumb, square and level so doors operate freely and without tension. Standard margins are 1/8” at each side and at the top.

Fitting + Installing Fire-Rated Doors

All fire-rated doors must be installed in accordance with NFPA-80 and must be pre-fit and machined by Forte Opening Solutions or other licensed machinists. While it is best not to cut doors for openings smaller than those for which they are manufactured, licensed machinists may bevel the stiles at the rate of 1/8” in 2” so proper clearance can be maintained.

Doors with veneer or decorative laminate edgeband will require re-banding after trimming.

The standard location for Intertek and Underwriters Laboratories (UL) fire-rated door labels is on the hinge stile of the door. It identifies the door as fire-rated. Do not remove, cover up, or paint over the metal fire label.

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Do not trim the door lock stile with concealed or exposed intumescence. Do not remove any surface applied intumescent material. Doors may be undercut a maximum of 3/4" from the bottom as long as clearances are maintained per NFPA-80.

Locks

Install locks per manufacturer's instructions.

Installation Instruction for Non-Rated Lite Kits

See Field Installation Instructions for Non-Rated Wood Lite Kits.

Fitting Non-Rated Doors

While it is best not to cut doors to fit smaller openings than for which they are manufactured, the following guidelines should be followed: Trim equally from both sides. Do not trim more than 3/8" off each edge. Doors with veneer or decorative laminate edgeband will require re-banding after trimming. If the total height is reduced more than 3/4", trim equally from the top and bottom, but never more than 3/4" from either end.

Door Frames

Must use listed frames for fire rated construction. Install door frames per manufacturer's instructions. Do not install doors unless the jamb is plumb, level and square.

Field Finishing

Note: The Forte Opening Solutions Warranty does not cover the appearance of field finished doors. Field finished doors, including primed doors, must be sanded prior to finishing. Handling marks to be removed by the company finishing the product and are not part of the warranty. The painting and decorating contractor shall putty nail holes with colored putty that approximates the color of the finished wood.

Hinges

Mortise hinges should be attached with No. 12 x 1-1/4" steel threaded-to-the-head wood screws (see ANSI Standard - B 18.6.4), into 9/64" pilot holes. Surface hinges must be secured with steel.

Fasteners and Torque Settings

Fasteners must not be over-torqued during installation. Failure to torque mounting screws to recommended settings will result in a denial of any claims for cracked stiles, stripped or missing fasteners and subsequent claims for defective manufacturing.

Torque Limitations:

Fire-resistant composite stiles: 30 in-LB (2.5 ft-LB)

SCL/LSL stiles: 30 in-LB (2.5 ft-LB)

Hardwood stiles: 30 in-LB (2.5 ft-LB)

Door face torque limitations: 25 in-LB. (2.1 ft-LB)

Closers

Install closers per manufacturer's instructions. A surface-type closer requires no wood removal except for fasteners.

All surface-mounted hardware used on doors should be anchored using a #12 thread-to-the-head wood screw which penetrates the door a minimum of 1-1/4".

Backer plates are recommended on decorative laminate doors and mineral core doors when throughbolts are used. Attach backer plates with No. 8 3/4" threaded-to-the-head wood screws. A pre-drilled 3/32" pilot hole is necessary.

To prevent stile failure, provide a properly located door stop to limit the door swing.

Forte™ Opening Solutions will not provide a warranty for doors when using parallel arm closers without the use of adequate top rail blocking—wide enough for screw placement or through-bolts due to the lack of, or omission of, properly located wall and floor stops. Blocking must be specified to be included in the construction. See TECH UPDATE 122 for more information.

Fasteners must not be over-torqued during installation. Failure to torque mounting screws to recommended settings will result in a denial of any claims for stripped or missing fasteners and subsequent claims for defective manufacturing.

Lite + Louver Openings

Lite and louver openings in fire-rated doors must be machined at the factory or by an approved licensed machinist.

Exterior Use

Forte Opening Solutions interior doors are not recommended nor warranted for exterior use. Forte Opening Solutions offers an Aspiro® exterior stile and rail door with a limited 3 year warranty. See full warranty for required exterior door maintenance program details.

Installation Note:

Surface-mounted hardware used on doors with inner blocking should be anchored in that blocking using a no. 12 screw which penetrate the door a minimum of 1-1/4". Pilot holes of 9/64" must be drilled the depth of the screw. Refer to markings on the top rail or blocking options used.

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No-Bolt Locking for Mineral Core Doors

Blocking is not standard in any mineral core door, but is available as an added option.

Door Tolerances

Please refer to the Forte™ Opening Solutions Warranty.

Kick Plates

Kick plates are mechanically attached to the door face. The plate used must be an approved material (metal, stainless steel, acrylic, vinyl, bronze, aluminum or high pressure laminate). Kick plate height is not to exceed 48" from the bottom of the door for fire-rated doors.

Special Hardware Applications

Metal End Caps: Doors ordered and supplied with corner mortised flush bolts must be installed with metal end caps which are supplied with the doors to prevent flaring of the remaining portion of the door. If the doors with mortised flush bolts are ordered with metal edgeguards, the metal end caps are not required. Doors with certain concealed vertical rods (CVR's) must also be installed with metal end caps. Consult manufacturer for applicable CVR devices.

Maintenance

To ensure proper door function, periodically inspect and adjust door hardware as needed.

Door Markings

Forte Opening Solutions doors are marked for easy identification. Door opening numbers are marked on the door label. Endmatched numbers are marked on the top end rail of the door and the bottom end of the transom.

Metal Edge + Astragal

Concealed intumescent stile fire-rated doors do not require metal edges or a metal edge and astragal.

