

Factory Finishing

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Finish System Identification Numbers

The Architectural Woodwork Institute (AWI) has developed a numbering system for identifying different finishes that are available in the wood finishing industry. The system has been adopted by the Window and Door Manufacturers Association (WDMA) with the permission of AWI to create consistency within architectural and commercial door manufacturing.

Algoma's Univar® finish is comparable to AWI/WDMA TR-6/OP-6.

FINISH SYSTEM		AWI Section 1500 and WDMA I.S. 1-A
T R A N S P A R E N T	Synthetic Penetrating Oil and Simulated Oil Finish	TR-0
	Standard Lacquer	TR-1
	Catalyzed Lacquer	TR-2
	Cellulose Acetate Butyrate (CAB) and Water Reducible	TR-3
	Acrylic Lacquer	
	Conversion Varnish	TR-4
	Catalyzed Vinyl	TR-5
	Catalyzed Polyurethane	TR-6
	Two Component Clear Polyester	TR-7
	O P A Q U E	Standard Lacquer
Catalyzed Lacquer		OP-2
Cellulose Acetate Butyrate (CAB) and Water Reducible		OP-3
Acrylic Lacquer		
Conversion Varnish		OP-4
Catalyzed Vinyl		OP-5
Catalyzed Polyurethane		OP-6
Pigmented Polyester		OP-7
Pigmented Polyester/Polyurethane	OP-8	

Univar® Factory Finishes

Algoma® Made hardwood doors are available in a variety of wood faces and standard or custom color factory finishes. Algoma's Univar® clear finish protects and enhances the natural beauty of hardwood doors. Plus stain finishes are available to vary the natural wood color. Algoma's finish colors are catalyzed systems applied by skilled craftsmen on specialized equipment in controlled plant conditions.

These finishes are of a type and quality difficult to achieve with field finishing methods. Univar finishes are comparable to the AWI Finishing System TR-6 Premium Grade. The material provides depth and clarity and is available in a gloss range of 10 to 80 as measured by a Gardener Glossmeter with a 60 degree head. Univar is not an exterior finish.

Algoma's Univar® finishes are environmentally friendly. The system uses materials that are so high in solids content that volatile organic compounds (VOCs) emissions from solvents are eliminated. The materials are cured to a protective, beautiful finish using ultraviolet (UV) light instead of solvent emission. This state-of-the-art application and material use is consistent with Algoma's dedication to protecting the environment, employees and end-users.

Performance rating of Algoma's Univar® finish and AWI systems

Algoma's catalyzed liquid finish matches or exceeds the performance rating of all AWI transparent finish systems.

FINISH TYPE	AWI RATING*
Algoma Univar finish	98%
AWI System TR-6 Catalyzed Polyurethane	98%
AWI System TR-7 Clear Polyester	94%
AWI System TR-5 Catalyzed Vinyl	85%
AWI System TR-2 Catalyzed Lacquer	73%
AWI System TR-4 Conversion Varnish	65%
AWI System TR-1 Standard Lacquer	49%
AWI System TR-3 Water Reducible Acrylic Lacquer	45%
AWI System TR-0 Synthetic Penetrating Oil	27%

* System with all excellent ratings = 100%

Protection

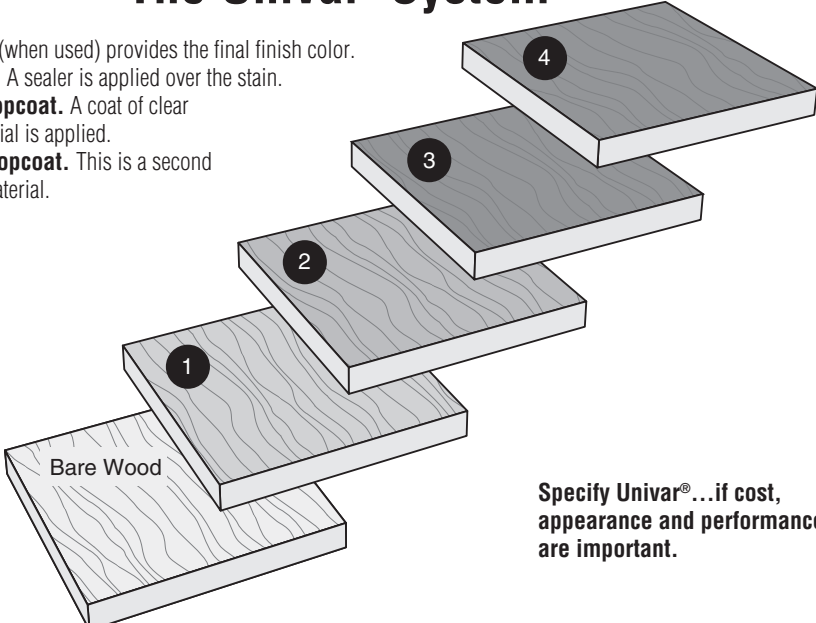
Factory finished doors will be individually wrapped in poly bags or slip-sheeted with cardboard between each door. Cardboard cartons are available at extra cost. Either form of protection can be left on the door until completely installed and operable.

Samples

Samples are available as described in the General Section of this binder.

The Univar® System

- 1. Stain.** A stain (when used) provides the final finish color.
- 2. Clear Sealer.** A sealer is applied over the stain.
- 3. First Clear Topcoat.** A coat of clear catalyzed material is applied.
- 4. Final Clear Topcoat.** This is a second coat of clear material.



Specify Univar® ...if cost, appearance and performance are important.

Univar[®] Factory Finishes

Product Specifications

- 1. Product Name.** Univar[®] Catalyzed Liquid Finish; meets or exceeds the performance characteristics of AWI Section 5.
- 2. Product description.**
 - Basic Use**—Univar provides a durable finish for interior use on architectural hardwood doors.
 - Limitations**—Univar is not recommended for use in wet or highly humid areas. It is not an exterior finish.
 - Composition and Materials**—Univar is a clear, liquid finish consisting of 100% solids UV curable system catalyzed material that is factory applied to properly prepared hardwood surfaces.
 - Color**—Univar is a clear finish that retains, protects and enhances the natural beauty of wood surfaces. It is also available factory stained to vary the natural wood color.
 - Finish**—Univar is available in a gloss range of 10 to 80 as measured by a Gardner Glossmeter with a 60 degree head.
- 3. Technical Data.** Univar has been tested in comparison with AWI Section 5 performance specifications.
- 4. Protection.** Univar is applied at the factory to wood surfaces under controlled conditions. At the job site, Univar surfaced doors should be protected from physical damage and stored on-site in a dry location. Products factory finished with Univar are shipped from the manufacturer suitably protected.
- 5. Guarantee.** Algoma Hardwoods, Inc. warrants that Univar will perform in accordance with AWI section 1500, system TR-6 specifications.
- 6. Maintenance.** In normal use, Univar finishes require little maintenance. If the Univar surface becomes soiled, it can be cleaned by use of a damp cloth.
If the Univar surface should become damaged, it can be repaired by use of conventional furniture repair techniques.
In time, as with any high quality commercial product, it may be desirable to refinish the Univar surface. If this is done, care should be taken to select a quality compatible finish and apply it in strict accordance to manufacturer's recommendations.
- 7. Technical Services.** For specific technical assistance, please write, call **800-678-8910** or email us at **sales@algomahardwoods.com**. Representatives are available to consult regarding proper factory finishes for specific applications, as well as other product information.

Rotary Natural Birch

To assist you with your preliminary color selection(s), various stain finish colors on typical veneer samples are shown below. When making your selection(s), bear in mind that veneers will vary in color and texture. As a result, the final finish color may vary from what is represented in these photographs. After species and color(s) have been selected, contact the factory for actual wood samples. **This page is not intended to be used for final color selection.**



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Plain Sliced White Birch

To assist you with your preliminary color selection(s), various stain finish colors on typical veneer samples are shown below. When making your selection(s), bear in mind that veneers will vary in color and texture. As a result, the final finish color may vary from what is represented in these photographs. After species and color(s) have been selected, contact the factory for actual wood samples. **This page is not intended to be used for final color selection.**



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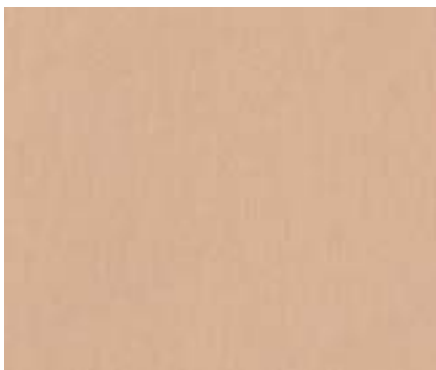
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Plain Sliced Red Oak

To assist you with your preliminary color selection(s), various stain finish colors on typical veneer samples are shown below. When making your selection(s), bear in mind that veneers will vary in color and texture. As a result, the final finish color may vary from what is represented in these photographs. After species and color(s) have been selected, contact the factory for actual wood samples. **This page is not intended to be used for final color selection.**



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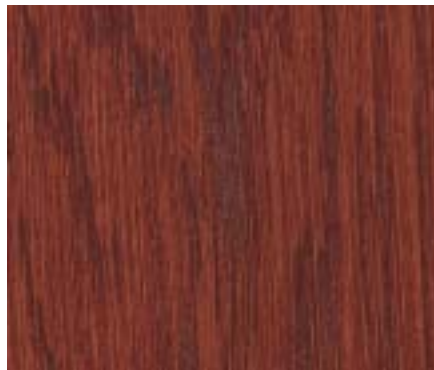
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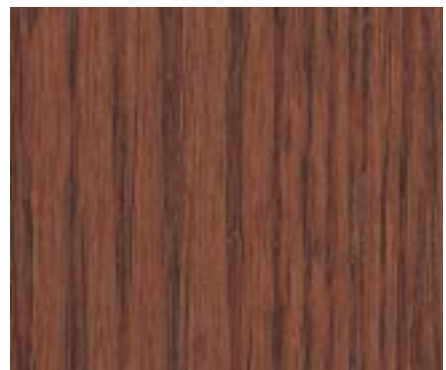
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Plain Sliced White Oak

To assist you with your preliminary color selection(s), various stain finish colors on typical veneer samples are shown below. When making your selection(s), bear in mind that veneers will vary in color and texture. As a result, the final finish color may vary from what is represented in these photographs. After species and color(s) have been selected, contact the factory for actual wood samples. **This page is not intended to be used for final color selection.**



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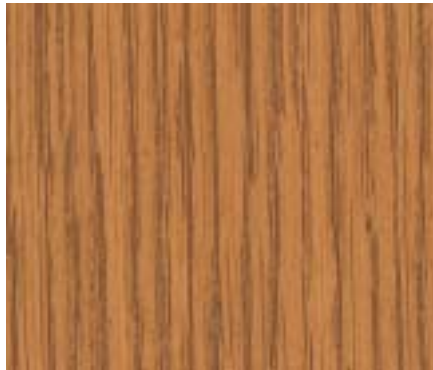
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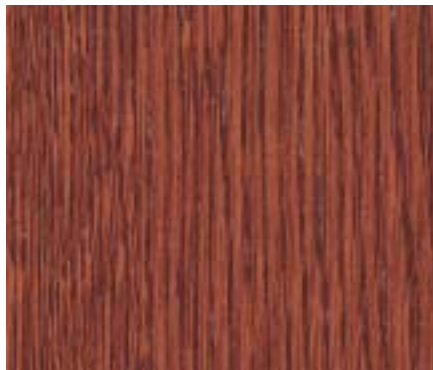
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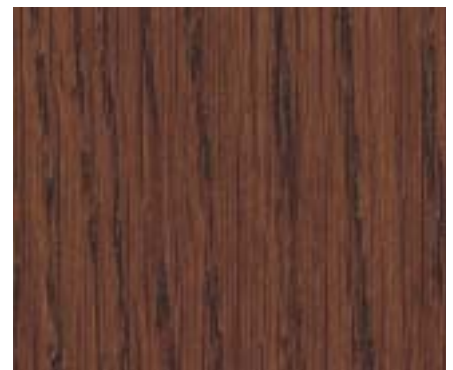
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Plain Sliced White Maple

To assist you with your preliminary color selection(s), various stain finish colors on typical veneer samples are shown below. When making your selection(s), bear in mind that veneers will vary in color and texture. As a result, the final finish color may vary from what is represented in these photographs. After species and color(s) have been selected, contact the factory for actual wood samples. **This page is not intended to be used for final color selection.**



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Plain Sliced Mahogany

To assist you with your preliminary color selection(s), various stain finish colors on typical veneer samples are shown below. When making your selection(s), bear in mind that veneers will vary in color and texture. As a result, the final finish color may vary from what is represented in these photographs. After species and color(s) have been selected, contact the factory for actual wood samples. **This page is not intended to be used for final color selection.**



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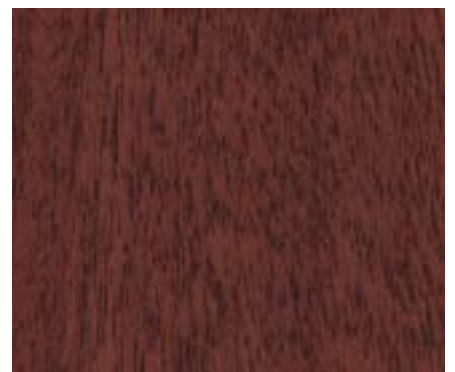
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Plain Sliced Cherry

To assist you with your preliminary color selection(s), various stain finish colors on typical veneer samples are shown below. When making your selection(s), bear in mind that veneers will vary in color and texture. As a result, the final finish color may vary from what is represented in these photographs. After species and color(s) have been selected, contact the factory for actual wood samples. **This page is not intended to be used for final color selection.**



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Color Variation



Plain Sliced White Oak from different logs with RA 4751 finish

Color and grain of natural hardwoods are neither uniform nor predictable. Because of soil content, weather, and other environmental factors, trees of the same species will invariably produce veneers of unique appearance and color. The photo above illustrates a typical range of variation which can be found by finishing different logs of the same species with identical stain and finish. Variation beyond the range illustrated here is not uncommon. This example is of plain sliced white oak, but each veneer species will exhibit a similar range of variation.

The veneer slicing method used will also impact color variation. Most of the species shown throughout this brochure are flat sliced veneers. Rotary cut veneers, e.g. natural birch, or red oak, may have both sap and heartwood in the same face, in which case the color variation can be quite noticeable.

Each individual "A" Grade door face made by Algoma uses the veneers from only one log. However, variations of the type shown above are likely from door to door, unless special veneer color selection is requested.

Given that most doors are not likely to be adjacent to one another, color variation from one door to another is not generally a problem. Whenever required or requested, Algoma will take appropriate steps to ensure optimal color and grain matching.

Call us for more details.

Custom Stain Colors

While standard stain colors will satisfy most door color requirements, custom colors are often called for to meet specific aesthetic and architectural needs. Algoma has a long history of working closely with clients to meet their special color needs. Over time, we've produced a broad range of different colors and hues, and our experience allows us to offer a nearly unlimited palette of colors from which to choose. All we need is a color chip and we'll begin to make the match. Call us for more details.

Unicol® Opaque Factory Finishes

Product Specifications

1. Product Name. Unicol® Catalyzed Opaque Liquid Finishes.

2. Manufacturer. Algoma Hardwoods, Inc.

3. Product Description.

Basic Use—Unicol provides a decorative, durable finish for interior use on architectural hardwood doors.

Limitations—Unicol is not recommended for use in wet or highly humid areas. It is not an exterior finish.

Composition and Materials—Unicol is an opaque liquid finish consisting of a high quality resin-oil combination catalyzed material pigmented to achieve desired solid color effect and factory applied to properly prepared hardwood surfaces.

Colors—Unicol is available to match most solid colors.

Finish—Unicol is available in gloss levels from 20 to 40 as measured by a Gardner Glossmeter with a 60 degree head.

4. Technical Data. Unicol has been tested in comparison with AWI Section 5. specifications.

5. Protection. Unicol is applied at the factory to wood surfaces under controlled conditions. At the job site, Unicol surfaced doors and panels should be protected from physical damage and stored on site in a dry location. Products factory finished with Unicol are shipped from the manufacturer suitably protected. Cardboard cartons are available at extra cost.

6. Availability and Costs.

Availability—Unicol is generally ordered for specified jobs. Accordingly, sufficient time allowances should be made when preparing schedules, shop drawings, orders, etc.

Costs—The availability of a wide range of products which may feature the finish makes it impractical to quote prices in this data sheet. For specific cost information, please contact Algoma Hardwoods.

7. Guarantee. Algoma Hardwoods, Inc. warrants that Unicol will perform in accordance with AWI Section 5.

8. Maintenance. In normal use, Unicol finish requires little maintenance. If surface becomes soiled, it can be cleaned using a damp cloth and normal household detergents.

In time, as with any high quality commercial product, it may be desirable to refinish the Unicol surface. If this is done, care should be taken to select a quality compatible finish and apply it in strict accordance to manufacturer's recommendations.

9. Technical Services. For specific technical assistance, please write, call **800-678-8910** or email us at **sales@algomahardwoods.com**. Representatives are available to consult regarding proper factory finishes for specific applications, as well as other product information.

Policy on Field Finishing

Finishing at the jobsite or in our customer's shop shifts the responsibility away from the Algoma factory. (See Algoma Hardwoods' Door Warranty, Tolerances, Exclusions and Instructions.) To assist all parties in recognizing their responsibilities, the notice shown here is included with every packing slip on every shipment leaving the factory.

NOTICE: JOB CAPTAIN AND FINISHER

Storing Doors

Pile doors on leveled supports covered with a sheet of plywood or heavy cardboard to protect the face of the bottom door. Cover the top door in a similar manner. Protect all doors from exposure to light with dark colored polyethylene or similar material. Do not store doors in damp areas or freshly plastered buildings. Storage area should be dry and well ventilated. Relative humidity should range from 25% to 55%. Do not subject material to extremely high or low humidity. When moving doors, handle them with clean hands or wear clean gloves. Bare hands leave finger marks and stains. Do not drag them across each other or against other surfaces. If unfinished material is to be stored at jobsite for more than one week, all edges should be sealed.

Finishing Doors

All doors must be inspected for matching, face grade or other visual defects prior to installation and finishing. These doors **should not be considered as ready for finishing** as received. The factory cannot be responsible for the manner in which they are handled once they are loaded for shipment.

Before applying **any** finish, the finisher **must thoroughly block-sand or belt-sand both faces** with 120 to 180 grit sandpaper in order to remove all scuffs, scratches, burnishes, raised grain, handling marks and effects of exposure to moisture. Thorough sanding cannot be done without using a sanding block and the door must be in a horizontal position.

To help ensure uniform color when applying any stains, it is highly recommended that a wash coat such as Minwax Wood Conditioner be applied, followed by a light sanding. It is also essential to apply stains with the door in a **horizontal position**. This permits easier handling of materials and prevents the solvents from evaporating too quickly, which is a common cause of streaks caused by the stains "setting up" before clean up can be completed. If problems develop in finishing **do not continue** with the finishing. Notify your finish supplier or door supplier immediately. Avoid extremely dark stains on light colored woods. **The darker the stain the better the preparatory sanding must be.**

Doors to be painted in the field will require additional field preparation before application of final coats. Additional preparation may include spackling and/or sanding because of hidden surface blemishes or differential absorption of finish coats.

FAILURE TO FOLLOW THESE FINISHING INSTRUCTIONS PUTS TOTAL RESPONSIBILITY FOR THE APPEARANCE OF THE FINISHED PRODUCT IN THE HANDS OF JOBSITE PERSONNEL.

If these instructions are contrary to instructions supplied by the finish manufacturer, all work should stop until an understanding between finish supplier and door supplier is reached.

All doors must be inspected for color match, face grade or other visual defects prior to installation and finishing.

If the customer cannot prove that the material supplied by Algoma Hardwoods was handled as outlined above, we cannot be held liable for problems that may be encountered.

Field Finishing Procedures

Note: Algoma Hardwoods is not responsible for the appearance of field finished doors. The following information is given to help the field finisher with his responsibilities.

A. Storage and Handling

1. Pile doors on leveled supports covered with a sheet of plywood or heavy cardboard to protect the face of the bottom door. Cover the top door in a similar manner. Protect all doors from exposure to light with dark colored polyethylene or similar material. Storage area should be dry and well-ventilated.
2. Do not store in building that has wet plaster, cement, or excessive moisture of any kind.
3. Doors should not be subjected to abnormal heat, dryness or humidity, or sudden changes therein. Relative humidity should not be less than 25% or greater than 55%.
4. Handle with clean hands or gloves; do not drag doors across one another or across other surfaces.

B. Preparation

1. Surface must be clean and dry.
2. Before applying **any** finish, **thoroughly block-sand or belt-sand both faces** with 120 to 180 grit sandpaper in order to remove all scuffs, scratches, burnishes, raised grain, handling marks and effects of exposure to moisture. Thorough sanding cannot be done without using a sanding block, and the door must be in a horizontal position. Always sand with the grain of the wood. Do not use steel wool.
3. Clean surface with tack rag or other suitable means.
4. To help assure uniform color when applying any stains, it is highly recommended that a wash coat such as Minwax Wood Conditioner be applied, followed by a light sanding.
5. If possible, test surface for compatibility with finish. In some veneers, there will be a reaction with certain finishes.
6. Apply finish as soon as possible after the doors have been properly prepared.

C. Finishing (Interior)

1. Use only high-grade finishing material, and follow the manufacturer's instructions carefully. Do not intermix materials from different suppliers.
2. Apply seal coat to both faces and four edges; allow for thorough drying. Sand lightly with 120 to 180 grit sandpaper. This seal coat will allow uniform staining of the veneers when stained or when filler stain is required. **If veneers are not sealed prior to staining, the surface may appear more streaked or blotchy.**
3. Apply one or more coats of stain or filler stain as required. Allow to dry thoroughly. It is essential to apply stains with the door in a **horizontal position**. This permits easier handling of materials and prevents the solvents from evaporating too quickly, which is a common cause of streaks caused by the stains "setting up" before clean-up can be completed. If problems develop in finishing **do not continue** with the finishing. Notify your finish supplier or door supplier immediately. Avoid extremely dark stains on light colored woods. **The darker the stain the better the preparatory sanding must be.**
4. Clean surface of all dust or dirt.
5. Apply two coats of top coat for best results. Allow to dry and sand between coats.
6. Apply finish to both faces and edges of doors.
7. The above procedure, if followed carefully, should give a satisfactory finish to the doors.

D. Finishing (Exterior)

1. Prepare doors as above in Steps A and B.
2. Use high-grade exterior finishing material and follow the finishing manufacturer's instructions carefully.
3. Follow Step C as above, but be sure to apply at least two finish coats for good exterior durability. Annual recoating is necessary to protect the door and maintain warranty.
4. If pigmented finishes are used, follow the manufacturer's instructions carefully and finish according to his specifications.

E. Important Notes

1. Doors to be painted in the field will require additional field preparation before application of the final coats. Additional preparation may include spackling and/or sanding because of hidden surface blemishes or differential absorption of finish coats.
2. **FAILURE TO FOLLOW THESE FINISHING INSTRUCTIONS PUTS TOTAL RESPONSIBILITY FOR THE APPEARANCE OF THE FINISHED PRODUCT IN THE HANDS OF JOBSITE PERSONNEL.**
3. If these instructions are contrary to instructions supplied by the finish manufacturer, all work should stop until an understanding between finish supplier and door supplier is reached.
4. All doors must be inspected for color match, face grade or other visual defects prior to installation and finishing.
5. If the customer cannot prove that the material supplied by Algoma Hardwoods was handled as outlined above, we cannot be held liable for problems that may be encountered.