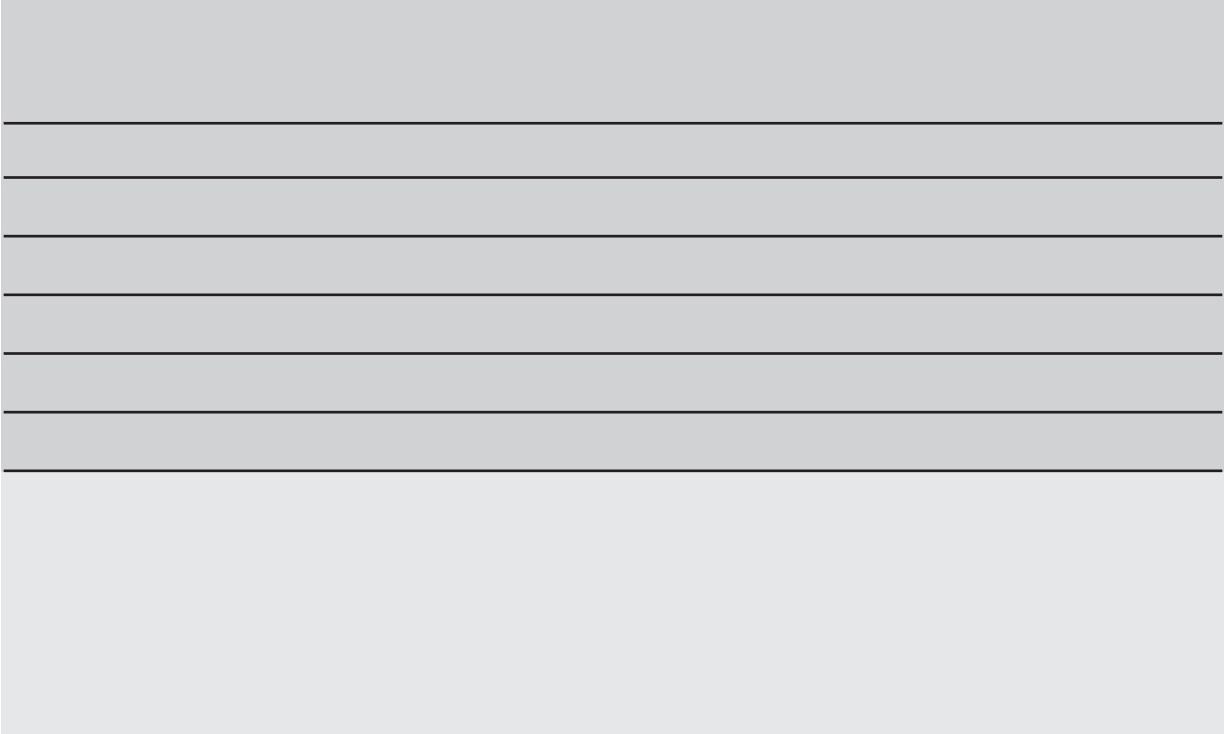


Custom Products Manual

Effective Spring 2005

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Finishing Program Overview

- Northwoods finishing capabilities allow our customers to simplify their shop process by eliminating the finishing of doors, mouldings and other products. Outsourcing finishing ultimately reduces VOC emissions and helps streamline throughput by minimizing the finishing bottleneck.
- Northwoods finishing program consists of traditional wiping stains, Colourtones, primer, Heirloom finishes and accent glazes.
- Northwoods has two topcoats available: 15° (low sheen) and 40° (medium sheen). Topcoat glosses will not be custom matched.
- In addition to our standard colors, custom color matching is available. Northwoods will only custom match wiping stains. Additional charges will apply.

Finishing Process

- Prior to finishing, Northwoods doors are hand-sanded to deliver a smooth, “finish-ready” product.
- To apply stain, Northwoods uses a time-proven, hand-wiped technique which delivers more color consistency and depth than simple spray stain applications.
- Most of Northwoods framing beads are designed with a slight back bevel, which allows the stain to penetrate beyond the juncture of the framing bead and panel raise. During the staining process an air nozzle is used to blow stain under the framing bead, minimizing the possibility of “white lines” appearing on the panel raise during expansion and contraction. All doors are matched to a control sample for color consistency during the staining process.
- After staining, doors are loaded onto our state-of-the-art flat line finishing system to receive sealer and topcoat. The equipment provides a clean and consistent finish. The sealer is a high solids material that is applied and then sanded with a fine grit sandpaper after drying. The final coat is a high solids conversion varnish. The final process typically involves the application of a 15° or 40° sheen topcoat on wiping stains and a 15° sheen topcoat on products finished with a Colourtone, Heirloom or glaze finish. The 15° sheen topcoat is standard on some wiping stains, but usually must be specified. (Check with Customer Service for availability.) The result is a beautiful finish that is durable, long lasting and resistant to most household chemicals.
- After curing, doors are inspected before being packaged for delivery to our customers.

Finishing Tolerances

- Northwoods finishing tolerances are designed for solid wood applications. Application of finish on veneers and MDF may result in a slightly different color. Similarly, stains applied by the customer may vary slightly from those products stained by Northwoods. To ensure a close match, customers should contact their Sales or Customer Service Representative and ask about our Duraguard® Finishing System. See the Duraguard® Program Information in this section for more information. Instructions for application are enclosed with every can of stain sold.
- Northwoods can not predict how a door, or portions of a door, will accept stain. Therefore, if a door meets our material specification standards in its unfinished state, it will be considered acceptable after finishing as well.

Finishing Warranties

- Northwoods finishes carry a one year limited warranty against peeling, blistering, fading or cracking, but no warranty against discoloration. Northwoods assumes no responsibility for damages or poor color match when finish is applied by the customer.
- Some species, particularly Cherry and Lyptus, will naturally darken with age. Northwoods will not be held liable for the change in appearance of any product, finished or unfinished, due to this aging process. Results of aging are more noticeable in clear or light finishes.
- Northwoods recommends that a finished sample door be ordered prior to ordering any finished job. We do not suggest ordering large or complex finished product based on small sample swatches.

Wiping Stains

- Whiter stains such as Alpine are not available over certain darker, high contrast species such as Walnut, Lyptus or Mahogany.
- Northwoods does not recommend darker finishes such as Colonial, Cordovan or Washington Cherry over light species such as Hard Maple or Soft Maple. The contrast, as well as the properties of Maple, creates a blotchy, uneven look. Therefore, these combinations are Not Recommended, but can still be produced with a 20% upcharge and no warranty on color consistency.

Glazing

- Glazing is a very subjective treatment. Each door becomes “one-of-a-kind” and unique in its appearance. Even though Northwoods matches every glazed door to a control sample, each door will take glaze differently. Color consistency is more difficult to control on glazed products. Some of the factors influencing color consistency are grain patterns, wood density, stain color, thickness of the sealer coat, sealer sanding and overall size of the piece.
- Glazed products will vary in appearance. Northwoods considers these slight variations acceptable and will not warrant variations of glazes.
- We recommend that our customers develop a document that would be read and signed by the end user indicating their understanding of the potential color issues with a stain/glaze combination. Such a document will help protect all parties in the event of a color-based issue.
- We strongly recommend that a sample door be ordered prior to ordering a full kitchen, regardless of the finish and specie combination.
- Northwoods maintains strict standards for its glazing process. With this in mind, Northwoods will not “custom” glaze a job. Therefore, we offer only our standard glazing options.
- Glazes significantly alter the appearance of a stain/specie combination. An attractive combination may look quite different once glazed. With this in mind, we do not recommend certain glaze combinations, and some combinations are not available. See the Offering and Availability charts in this section for details.
- Northwoods standard glaze offering is available in combination with some custom finish matches.

Primed Products

- Northwoods priming capabilities allow you to outsource the time consuming process of prepping and priming your doors, drawer fronts and mouldings. Outsourcing primed products reduces VOC emissions and increases the efficiency and throughput of your finishing area.

Northwoods offers three substrate materials for priming which include:

- Solid wood – Paint Grade and Paint Grade Hard Maple products are available in a wide variety of product designs.
- MDF – A 48-pound density MDF material. MDF products are limited in design options. (See the MDF section of this manual for options.)
- Hybrid Products – Hybrid products utilize Paint Grade or Paint Grade Hard Maple framing in combination with 48-pound density MDF center panels. All published panel raises are available in MDF material to use in a wide variety of wood framed door and drawer front designs.
- Northwoods primer is a white, post catalyzed, acid cured primer, compatible with many high quality topcoats.
- Prior to priming, the substrate is prepared to accept the coating material. Putty is applied to the joints, open-end grain, tear outs and other visible voids. The product is then hand sanded to remove excess putty and provide a smooth, uniform surface to accept the primer coat.
- Most Northwoods framing beads are designed with a slight back bevel to allow some primer material to penetrate beneath the framing bead. However, due to the high solid content of the primer itself, bridging of the primer material may occur between the panel and the framing bead on five piece products. Moderate bridging is not considered a defect.
- After curing, doors are inspected, individually wrapped, then packaged and shipped.
- There are thousands of topcoats available to paint residential cabinetry. While many of these products may work in combination with our primer, we recommend only acid cured conversion varnish topcoats.
- Prior to applying topcoat to a primed product, customers should scuff sand the primer using 320-grit sandpaper no more than 24-hours before applying topcoat. All surfaces must receive this sanding step to achieve a mechanical bond and to avoid telegraphing.
- Northwoods primed products receive one coat of putty prior to application of primer. Smaller voids will become apparent after the primer has been applied. These voids are acceptable and will require a second coat of putty by the customer prior to painting.
- Northwoods primed products are subject to some natural grain raise during the priming process, which is not considered defective. Normal sanding preparation for topcoat application will remove these wood fibers.
- Northwoods primed products are manufactured using substrate materials that will expand and contract with fluctuations in climate, temperature and humidity. The movement of the substrate will cause fracturing anywhere sub-components have been joined together.

Primed Products (continued)

This fracturing is not considered defective and will most likely occur in the following areas:

- Framing joints: where the stiles meet the rails on the face and back of doors, five piece drawer fronts and wainscot panels.
- Edge profiles: in both mitered and mortise and tenon joint construction at the exterior edges of the product.
- Center panels: where the panel recesses into the framing. Bridging of the coating materials can occur between the panel and framing. Natural expansion and contraction of the substrate may fracture the bridging.
- Panel face: when individual adjacent staves in the panel expands and contracts at different rates causing minor offsets.
- Northwoods will not warranty any topcoats to be compatible with our primer material. Testing for compatibility and adhesion should take place prior to applying any topcoat to a primed door.
- Northwoods assumes no responsibility for incorrect application of topcoats by the customer resulting in poor adhesion, color match or other finish related problems.
- Primed products are individually wrapped minimizing scuff marks.
- Individually wrapped products are grouped and packaged to add rigidity and minimize the possibility of shipping damage.

Colourtones

- Colourtones are opaque finishes, similar in appearance to paint. The coatings are pigmented basecoats that must be catalyzed prior to application. Northwoods utilizes air-assisted, airless spray equipment to apply these coatings.
- Colourtones have a high solids content, resulting in better build and lower VOC emissions. These finishes are very durable and resistant to moisture.
- Specific species and grades are available with Colourtone coatings, including Paint Grade Hard Maple. Characteristics common to some species, such as pitch pockets in Cherry, will be present in finished products. See the Offering and Availability charts in this section for specie, finish and glaze availability.
- All Colourtone finishes will receive a 15° topcoat.
- We do not recommend applying Colourtones over plywood products due to checking and seam separation that can occur on the surface of the veneer. Changes within the veneer itself can give the appearance of cracking within the coating. Veneer checking is an inherent plywood characteristic and is not warranted.
- Because Colourtones contain a high percentage of solids, certain characteristics such as joint fracturing will occur. Hairline cracks typically develop along joints on the face, back and edge profiles, and can occur during normal handling or from the expansion and contraction of wood. Joint fracturing is not considered to be a defect.
- Colourtone products are placed on drying racks after the coating application process. Small indentations or pin marks from drying racks will appear on the backs of Colourtone products and are not considered defects.

Colourtones (continued)

- Because the individual staves of the panel continue to contract and expand, lines may appear on solid wood panels and offsets may develop from one stave to another. These will not be considered defective.
- Colourtones may vary slightly from one batch to another, but will remain within a controlled color range.
- Minor flaws such as dust particles, dimples and lint are more apparent with opaque finishes than with wiping stains. The presence of small amounts of these defects will be considered acceptable.
- Coatings containing high solids are susceptible to bridging between the framing and center panel. Bridging occurs when the coating material joins the two separate surfaces together. This condition is common between multiple component products and is not considered defective. Over time, the natural expansion and contraction of wood may cause this bridging to fracture.
- As with most finishes, Colourtone colors will change over time due to exposure to light, pollution and chemicals. Additions or replacements to existing kitchens may not initially match finished products already in place.
- All Northwoods products carry a one-year limited warranty against faulty workmanship and materials.
- Customers interested in purchasing Colourtone finishing materials through the Duraguard® program should see Duraguard® Systems information, found in this section of the manual, for coatings pricing and selection.
- When purchasing multiple containers of loose Colourtone coating material, mix the contents of like finishes together prior to adding catalyst to achieve a consistent overall color.
- Catalyst must be added to all Colourtone finishes prior to application. The catalyzed process results in both a limited pot life and a recoat window. Mixture and application instructions will be provided with the purchase of loose Colourtone finishing materials through the Duraguard® program.
- Northwoods assumes no responsibility for incorrect application of Duraguard® materials by customers, which may result in poor adhesion, color match or other finish related failures.
- We recommend that any topcoat other than Duraguard® products be tested prior to application. Northwoods will not warrant products that fail due to non-compatible topcoat materials.

Colourtones with Glazes

- Glazed treatments offer a distinctive appearance, significantly altering the base Colourtone color. The random nature of the glazing option ensures slight variations from one product to the next, giving a unique look to the finished kitchen.
- Colourtones receiving the glazed option will have slight inconsistencies in appearance. Variations, however slight, are inherent to this finish combination. To successfully market this product, education of your production personnel, installers, sales staff, designers and clients must take place. Northwoods will not offer no charge replacements for any of the reasons previously listed.

Colourtones with Glazes (continued)

Characteristics of glazed finishes include variations in:

- Glaze “hang”, with noticeable variations on edge profiles, panel raises and applied mouldings.
- Absorption into end grain on framing and panel raises.
- Appearance of blotches and rag marks.
- Highlighting of machined areas, which normally do not appear with typical wiping stains or base Colourtone colors.
- Glazed Colourtones will remain within a controlled range of color, however, individual pieces will vary slightly.
- As with any Colourtone product, we do not recommend ordering plywood panel doors or other veneered products due the inherent cracking and checking that takes place in veneers. Veneer checking will not be considered a finishing defect.
- Use of glazes on mitered and applied moulding products will greatly enhance any offset that may be present in the joint construction.
- MDF doors finished with Colourtone and glaze will have noticeable variations in glaze hang and absorption on profiled areas. Machined areas may contain small pinholes that are highlighted by the glaze and will not be considered defects.

Colourtones with Brushed Glaze Effect

- Colourtones with a brushed glaze effect offer the classic look of a painted basecoat and glaze; this glaze treatment appears to have been applied with a paint brush. Simulated brush strokes in the glaze have been achieved using a precise sanding process prior to the glaze application. This finishing technique utilizes identical materials as our Colourtone and Heirloom lines, offering similar durability and moisture resistance.
- As with most glazed finishes, the brushed glaze process significantly alters the tone of the base color. Full sized samples of the actual door design should be obtained before placing an entire kitchen order.
- The etched surface, created during the sanding process, provides a unique appearance on each product, and will vary from one surface to the next and one product to the next. These differences can be magnified by the product design and are not considered to be defective.
- The simulated brush strokes will either stop short of, or overlap the frame joints on both mortise & tenon and mitered designs. Scratch patterns that stop short of the joint, or overlap the joint help to create an imperfect, but authentic appearance and are not considered defective. This same condition will be apparent on each profiled corner of a panel raise or one piece drawer front.
- The amount of glaze hang is directly dependent on the degree and direction of the pre-glaze sanding. Individual products within an order will vary in appearance. These variations are not considered defective.
- The brushed glaze effect possesses the same characteristics as those outlined in the Colourtones with Glazes section.

Heirloom Finishes

- Northwoods Heirloom finishes provide a unique, distinctive look. It is very likely that each door, drawer front and accessory item will differ somewhat in appearance. When all pieces are combined in an installed kitchen, Heirloom finishes make an attractive design statement.
- The overall appearance of the Heirloom finish is achieved by combining three elements; a layer of Colourtone material, a glaze application and a combination of specific distressing techniques referred to as the Vintage Distressing Package. Although options exist as to which base color and glaze are chosen, each Heirloom finish must contain each of these three elements.
- These coatings are pigmented base coats that must be catalyzed prior to application. Northwoods utilizes air-assisted, airless spray equipment to apply these coatings.
- Depending upon the specie of wood chosen and the type of grain present within the individual product, Heirloom finishes can range in appearance from opaque to semi-opaque, sometimes allowing the grain pattern in the wood to telegraph through the coating, enhancing the overall aged look.
- Specific species and grades of wood are available with Heirloom finishes. Characteristics that are common to some species, such as pitch pockets in Cherry, will be present in the finished products. See the Offering and Availability chart in this section for a complete listing of specie, finish and glaze availability.
- All Heirloom finishes receive a 15° topcoat.
- Products coated with the Heirloom finish are placed on drying racks after the coating application process. As a result, small indentations or pin marks from these drying racks will appear on the backs of Heirloom products. These indentations are not considered defects.
- Minor flaws such as dust particles, dimples and lint may be more apparent with Heirloom finishes than with wiping stains. The presence of small amounts of dust and lint will be considered acceptable.
- Because the coating material used in Heirloom finishes contains a high amount of solids, certain characteristics such as joint fracturing will occur. Hairline cracks typically develop on the face, back and edge profiles, and can occur during normal handling of the finished product. Joint fracturing is not considered a defect.
- As with most finishes, Heirloom coatings will change over time due to exposure to light, pollution and chemicals. Additions or replacements to existing kitchens may not initially match finished products already in place.
- Coatings containing high solids are susceptible to bridging between the framing and center panel. Bridging occurs when the coating material joins two separate surfaces together. This condition is common between multiple component products and is not considered defective. Over time, the natural expansion and contraction of wood may cause the bridging to fracture.
- All Northwoods products carry a one-year limited warranty against faulty workmanship and materials.
- Customers interested in purchasing Heirloom finish and glaze materials through the Duraguard® program should reference specific Colourtone and glazing materials in the Duraguard® Systems information found in this section of the manual.

Heirloom Finishes (continued)

- When purchasing multiple containers of loose Colourtone coating material, mix the contents of like finishes together prior to adding catalyst to achieve a consistent overall color.
- Catalyst must be added to all Colourtone coating materials prior to application. The catalyzation process results in both a limited pot life and a recoat window. Mixture and application instructions will be provided with the purchase of loose Colourtone materials through the Duraguard® program.
- Northwoods assumes no responsibility for incorrect application of Duraguard® materials by customers, which may result in poor adhesion, color match or other finish related failures.
- We recommend that any topcoat other than Duraguard® products be tested prior to application. Northwoods will not warrant products that fail due to non-compatible topcoat materials.
- As with any coating that utilizes a glazing material, certain characteristics of glaze applications will be apparent in the overall finished appearance.

The characteristics and variations are as follows:

- Noticeable variations in glaze “hang” on edge profiles, panel raises, miter joints and applied mouldings.
- Absorption into end grain on framing and panel raises.
- Highlighting of machined areas, which normally do not appear in typical wiping stain applications.
- The presence of rag marks and blotches.
- Slight variations in the finished color from one product to another.
- As with all high solid based coating materials, we do not recommend ordering plywood doors or other veneered products due to the inherent cracking and checking that naturally occurs in veneered products. Veneer checking will not be considered a finishing or material defect.
- While the overall color of Heirloom finishes will be produced within a certain color range, the glazing and distressing techniques are designed to generate a great deal of variation in the finished appearance from one door to the next. While specific imperfections and characteristics may appear exaggerated from one product to the next, the overall look is intended to blend together, providing a unique appearance to your finished kitchen.
- We strongly recommend that sample doors be purchased in the desired color and design prior to placing full kitchen orders. This will ensure that the combination of specie, finish and glaze meets your expectations.

Custom Stain Matching

- A representative sample of the color match to be achieved must be provided. Once a finish is matched, the customer will be sent a hard sample and asked to sign an approval document. A custom color mix number will be assigned, which must be used every time an order is placed for that finish. There is a \$200 net charge for the initial custom match, and \$50 net for every subsequent use of an existing custom mix. Allow 10 days for completion of color matches. Call Customer Service for a quote on packaged quarts or gallons of custom finishes.
- Our in-house matching capability assures our customers a prompt response of all matching requests. Custom mixes are kept on record as long as the finish continues to be used. If no orders are placed using the stain for one year, the mix will be voided. This process guarantees our customers a truly unique stain since it is matched to their exact specifications. Northwoods will only custom match wiping stains. Spray stains, NGR stains, dye stains, Colourtones, and speckling materials will not be custom matched. Base stains with glazes will not be matched, unless one of our standard glazes can be used. These will be evaluated on an individual basis.

Antiquing

- Antiquing/Rub-Through—A random post-finish sanding of exposed corners and edges. Provides a complementary worn look to our distressing.
- To achieve a heavier level of antiquing, combine this option with our wear sanding option. See the Design Options section for pricing.

Distressing

- Distressing Levels
 - Level 1— A random distribution of nicks and impressions.
 - Level 2— All characteristics of Level 1 plus simulated wormholes, razor cuts and cut joints.
- Keep in mind that both options are random applications designed to give doors and drawer fronts an aged, antique-like appearance. Distress markings will typically not appear on raise profiles.
- Different door styles and species may accept distressing differently.
- Northwoods recommends ordering distressing for all pre-finished pine products, because of the softness of pine.
- Antiquing and distressing are subjective treatments. Northwoods only offers its standard versions of these treatments. Custom antiquing and distressing is not available. See the Custom Finishing chart in this section for pricing.

Cross Grain Sanding

- This option is automatically included at no charge on prefinished products. Prices below are per panel for unfinished doors, wainscoting and appliance panels, and per piece for other unfinished products such as drawer fronts and valances.

Face, back and edge profile	\$
Face and edge profile only	\$
Face and back only	\$
Edge profile only	\$
Face only	\$

Customer Responsibilities

- All sample doors and swatches should be properly labeled with species, stain color, date and sales order number.
- Sample doors and swatches should be stored in such a manner that they are not exposed to light or extreme heat for an extended period of time. Exposure to sunlight, indoor lighting or extreme heat will cause samples to discolor and they will no longer be an accurate representation of color.
- Sample doors and swatches should be replaced every 12 months or when they become discolored. Cherry and Lyptus will need to be replaced more frequently than other species. Northwoods cannot guarantee that a current order will match a sample more than 12 months old. Jobs sold from a sample swatch older than 1 year will not be warranted for color match.
- We strongly recommend that a full kitchen **not be sold from a color swatch**. Order a sample door to show a greater array of possible character effects on a particular design, stain, glaze and specie combination.
- For displays that are older than one year or may be discolored, we recommend that customers obtain a current sample door in that species, stain and glaze combination. Remember, display kitchens do change color due to their exposure to natural light, indoor lighting, heat and other conditions. The change that takes place is very gradual and may be difficult to detect, especially if viewed daily.
- If a job is ordered based on the color of a sample door or display, make sure the sample is less than one year old and the color is accurate. Customers asking for replacements because the job does not match their sample will be asked to provide the original sample sales order number, so that the age of the sample may be determined. Northwoods will not provide a no charge replacement if the sample is more than 12 months old or is discolored due to excessive exposure.

Using the Offering and Availability Chart

The offering and availability charts on the following pages should be referenced prior to placing an order.

1. Locate the desired finish in the top row.
2. Follow the desired finish row down to the desired specie/glaze combination found along the left column of the chart.
3. The box where the finish, specie and glaze combination intersects, will contain one of the following references:
 - R** = Recommended: These finish combinations refer only to the consistency of the finish application and not the aesthetic beauty of the combination.
 - NR** = Not Recommended: These finish combinations are problematic and do not meet standards for color consistency. They also highlight various other characteristics such as machine marks, shake and open end grain that will not be considered defective. NR combinations will receive a 20% upcharge to the design charge compensating for additional labor required for difficult combinations. Even if a sample door is purchased, we cannot guarantee that the next order will match that sample door. Northwoods will not guarantee color consistency on NR combinations.
 - NA** = Not Available: Such combinations present application challenges which result in finish appearances Northwoods cannot consistently reproduce, and are not available.

Offering and Availability

Wiping Stains										
	Alpine	Autumn	Chestnut	Colonial	Cordovan	Eucalyptus	Ginger	Harvest Gold	Heather Blue	Honey
Alder										
No Glaze	R	R	R	R	R	R	R	R	R	R
Brown	NA	R	R	R	R	R	R	R	R	R
Caramel	NA	R	R	R	R	R	R	R	R	R
Pewter	NA	R	R	R	R	R	R	R	R	R
Sable	NA	NR	R	R	R	R	NR	R	R	R
White	R	R	NA	NA	NA	NR	R	NR	NR	NA
Ash										
No Glaze	R	R	R	R	R	R	R	R	R	R
Brown	NA	R	R	R	R	R	R	R	R	R
Caramel	NA	R	R	R	R	R	R	R	R	R
Pewter	NR	R	R	R	R	R	R	R	R	R
Sable	NA	NR	R	R	R	NA	NR	NR	NA	R
White	R	R	NA	NA	NA	R	R	R	R	NA
Birch, Red										
No Glaze	NA	R	R	R	R	NR	R	R	NA	R
Brown	NA	R	R	R	R	NR	R	R	NA	R
Caramel	NA	R	R	R	R	NR	R	R	NA	R
Pewter	NA	R	R	R	R	NR	R	R	NA	R
Sable	NA	NR	R	R	R	NR	NR	R	NA	R
White	NA	R	NA	NA	NA	NR	R	R	NA	NA
Birch, White										
No Glaze	R	R	R	R	R	R	R	R	R	R
Brown	NA	R	R	R	R	R	R	R	R	R
Caramel	NA	R	R	R	R	R	R	R	R	R
Pewter	NR	R	R	R	R	R	R	R	R	R
Sable	NA	NR	R	R	R	R	NR	R	R	R
White	R	R	NA	NA	NA	NR	R	NR	NR	NA
Cherry										
No Glaze	NA	R	R	R	R	NR	R	R	NR	R
Brown	NA	R	R	R	R	NR	R	R	NA	R
Caramel	NA	R	R	R	R	NR	R	R	NA	R
Pewter	NA	R	R	R	R	NR	R	R	NR	R
Sable	NA	R	R	R	R	NR	R	R	NA	R
White	NA	NR	NA	NA	NA	NR	NR	NR	NA	NA
Hickory										
No Glaze	R	R	R	R	R	NR	R	R	NR	R
Brown	NA	R	R	R	R	NR	R	R	NR	R
Caramel	NA	R	R	R	R	NR	R	R	NR	R
Pewter	NR	R	R	R	R	NR	R	R	NR	R
Sable	NA	NR	R	R	R	NA	NR	NR	NA	R
White	NR	R	NA	NA	NA	NR	R	R	NR	NA
Lyptus										
No Glaze	NA	R	R	R	R	NR	R	R	NA	R
Brown	NA	NR	R	NR	NR	NA	NR	R	NA	R
Caramel	NA	NR	R	NR	NR	NA	NR	R	NA	R
Pewter	NA	NR	NR	NR	NR	NR	NR	NR	NA	NR
Sable	NA	NR	R	NR	NR	NA	NR	NR	NA	R
White	NA	NR	NA	NA	NA	NA	NR	NR	NA	NA
Mahogany										
No Glaze	NA	R	R	R	R	NR	R	R	NA	R
Brown	NA	NR	R	NR	NR	NA	NR	R	NA	R
Caramel	NA	NR	R	NR	NR	NA	NR	R	NA	R
Pewter	NA	NR	NR	NR	NR	NR	NR	NR	NA	NR
Sable	NA	NR	R	NR	NR	NA	NR	NR	NA	R
White	NA	NR	NA	NA	NA	NA	NR	NR	NA	NA
Maple, Hard										
No Glaze	R	R	NR	NR	NR	R	R	R	R	NR
Brown	NA	R	NR	NR	NR	R	R	R	R	NR
Caramel	NA	R	NR	NR	NR	R	R	R	R	NR
Pewter	NR	R	NR	NR	NR	R	R	R	R	NR
Sable	NA	NR	NR	NR	NR	NA	NR	NR	NA	NR
White	R	R	NA	NA	NA	R	R	R	R	NA
Maple, Soft										
No Glaze	R	R	NR	NR	NR	R	R	R	R	NR
Brown	NA	R	NR	NR	NR	R	R	R	NA	NR
Caramel	NA	R	NR	NR	NR	R	R	R	NA	NR
Pewter	NA	R	NR	NR	NR	R	R	R	R	NR
Sable	NA	NR	NR	NR	NR	NA	NR	NR	NA	NR
White	R	R	NA	NA	NA	R	R	R	R	NA

Offering and Availability

Wiping Stains				
	Mesa	Natural	Nutmeg	Washington Cherry
Alder				
No Glaze	R	R	R	R
Brown	NR	R	R	R
Caramel	NR	R	R	R
Pewter	NA	NA	NR	R
Sable	NA	NA	NA	R
White	R	R	R	NA
Ash				
No Glaze	R	R	R	R
Brown	NR	R	R	R
Caramel	NR	R	R	R
Pewter	NR	NR	NR	R
Sable	NA	NA	NA	R
White	R	R	R	NA
Birch, Red				
No Glaze	NR	R	R	R
Brown	NR	R	R	R
Caramel	NR	R	R	R
Pewter	NR	NR	NR	R
Sable	NA	NA	NA	R
White	NR	NR	R	NA
Birch, White				
No Glaze	R	R	R	R
Brown	NR	R	R	R
Caramel	NR	R	R	R
Pewter	NR	NR	NR	R
Sable	NA	NA	NA	R
White	R	R	R	NA
Cherry				
No Glaze	NR	R	R	R
Brown	NR	R	R	R
Caramel	NR	R	R	R
Pewter	NR	NR	NR	R
Sable	NA	NA	NA	R
White	NA	NR	NA	NA
Hickory				
No Glaze	R	R	R	R
Brown	NR	NR	R	R
Caramel	NR	NR	R	R
Pewter	NR	NR	NR	R
Sable	NA	NA	NA	R
White	NR	NR	R	NA
Lyptus				
No Glaze	NR	R	R	R
Brown	NA	NR	NR	R
Caramel	NA	NR	NR	R
Pewter	NR	NR	NR	NR
Sable	NA	NA	NA	R
White	NA	NR	NR	NA
Mahogany				
No Glaze	NR	R	R	R
Brown	NA	NR	NR	R
Caramel	NA	NR	NR	R
Pewter	NR	NR	NR	NR
Sable	NA	NA	NA	R
White	NA	NR	NR	NA
Maple, Hard				
No Glaze	R	R	R	NR
Brown	NR	R	R	NR
Caramel	NR	R	R	NR
Pewter	NR	NR	NR	NR
Sable	NA	NA	NA	NR
White	R	R	R	NA
Maple, Soft				
No Glaze	R	R	R	NR
Brown	NR	R	R	NR
Caramel	NR	R	R	NR
Pewter	NR	NR	NR	NR
Sable	NA	NA	NA	NR
White	R	R	R	NA

R = Recommended: These finish combinations refer only to the consistency of the finish application and not the aesthetic beauty of the combination.

NR = Not Recommended: These finish combinations are problematic and do not meet standards for color consistency. They also highlight various other characteristics such as machine marks, shake and open end grain that will not be considered defective. NR combinations will receive a 20% upcharge to the design charge compensating for additional labor required by difficult combinations. Even if a sample door is purchased, we cannot guarantee that the next order will match that sample door. Northwoods will not guarantee color consistency on NR combinations.

NA = Not Available: Such combinations present application challenges which result in finish appearances Northwoods cannot consistently reproduce, and are not available.

Offering and Availability

Wiping Stains										
	Alpine	Autumn	Chestnut	Colonial	Cordovan	Eucalyptus	Ginger	Harvest Gold	Heather Blue	Honey
Oak, Red										
No Glaze	R	R	R	R	R	R	R	R	R	R
Brown	NA	R	R	R	R	R	R	R	R	R
Caramel	NA	R	R	R	R	R	R	R	R	R
Pewter	NR	R	R	R	R	R	R	R	R	R
Sable	NA	NR	R	NR	R	NA	NR	R	NA	R
White	R	R	NA	NA	NA	R	R	R	R	NA
Oak, White										
No Glaze	R	R	R	R	R	R	R	R	R	R
Brown	NA	R	R	R	R	R	R	R	NA	R
Caramel	NA	R	R	R	R	R	R	R	NA	R
Pewter	NR	R	R	R	R	R	R	R	R	R
Sable	NA	NR	R	NR	R	NA	NR	R	NA	R
White	R	R	NA	NA	NA	R	R	R	NA	NA
Pine										
No Glaze	NR	R	R	R	R	R	R	R	R	R
Brown	NA	R	R	R	R	R	R	R	R	R
Caramel	NA	R	R	R	R	R	R	R	R	R
Pewter	NA	R	R	R	R	R	R	R	R	R
Sable	NA	R	R	R	R	NR	R	NA	NA	R
White	NR	R	NA	NA	NA	R	R	R	R	NA
Walnut										
No Glaze	NA	R	R	R	R	NR	R	R	NR	R
Brown	NA	R	R	R	R	NR	R	R	NA	R
Caramel	NA	R	R	R	R	NR	R	R	NA	R
Pewter	NA	R	R	R	R	NR	R	R	NR	R
Sable	NA	R	R	R	R	NA	R	R	NA	R
White	NA	NR	NA	NA	NA	NR	NR	NA	NA	NA

Colourtones											
	Antique White	Chesapeake	Classic Burgundy	Creamy Butter	Crystal White	Designer White	Ebony*	Frosty White	Sage	Sandstone	Slate Blue
Ash											
No Glaze	R	R	R	R	R	R	R	R	R	R	R
Caramel	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA
Coffee	NA	NA	R	R	R	NA	NA	R	R	R	R
Pewter	NA	R	NR	R	R	NA	NA	R	R	R	NR
White	NA	R	NA	R	NA	NA	NA	NA	R	R	NR
Birch, White											
No Glaze	R	R	R	R	R	R	NA	R	R	R	R
Caramel	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA
Coffee	NA	NA	R	R	R	NA	NA	R	R	R	R
Pewter	NA	R	NR	R	R	NA	NA	R	R	R	NR
White	NA	R	NA	R	NA	NA	NA	NA	R	R	NR
Cherry											
No Glaze	NR	NR	NR	NR	NR	NR	R	NR	NR	NR	NR
Caramel	NA	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
Coffee	NA	NA	NR	NR	NR	NA	NA	NR	NR	NR	NR
Pewter	NA	NR	NR	NR	NR	NA	NA	NR	NR	NR	NR
White	NA	NR	NA	NR	NA	NA	NA	NA	NR	NR	NR
Maple, Hard											
No Glaze	R	R	R	R	R	R	R	R	R	R	R
Caramel	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA
Coffee	NA	NA	R	R	R	NA	NA	R	R	R	R
Pewter	NA	R	NR	R	R	NA	NA	R	R	R	NR
White	NA	R	NA	R	NA	NA	NA	NA	R	R	NR
Paint Grade Hard Maple											
No Glaze	R	R	R	R	R	R	R	R	R	R	R
Caramel	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA
Coffee	NA	NA	R	R	R	NA	NA	R	R	R	R
Pewter	NA	R	NR	R	R	NA	NA	R	R	R	NR
White	NA	R	NA	R	NA	NA	NA	NA	R	R	NR
Oak, Red											
No Glaze	R	R	R	R	R	R	NA	R	R	R	R
Caramel	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA
Coffee	NA	NA	R	R	R	NA	NA	R	R	R	R
Pewter	NA	R	NR	R	R	NA	NA	R	R	R	NR
White	NA	R	NA	R	NA	NA	NA	NA	R	R	NR

*Ebony Colourtones will magnify any small imperfection. It is strongly recommended that Ebony be sold only with antiquing or distressing. Small imperfections such as dust or lint will not be considered defects.

Offering and Availability

Wiping Stains				
	Mesa	Natural	Nutmeg	Washington Cherry
Oak, Red				
No Glaze	R	R	R	R
Brown	NR	R	R	R
Caramel	NR	R	R	R
Pewter	NR	NR	NR	R
Sable	NA	NA	NA	R
White	R	R	R	NA
Oak, White				
No Glaze	R	R	R	R
Brown	NR	R	R	R
Caramel	NR	R	R	R
Pewter	NR	NR	NR	R
Sable	NA	NA	NA	R
White	R	R	R	NA
Pine				
No Glaze	NR	R	R	R
Brown	NA	R	R	R
Caramel	NR	R	R	R
Pewter	NA	NA	NR	R
Sable	NA	NA	NA	R
White	NA	NR	R	NA
Walnut				
No Glaze	NR	R	R	R
Brown	NA	R	R	R
Caramel	NA	R	R	R
Pewter	NR	NR	NR	R
Sable	NA	NA	NA	R
White	NA	NR	NA	NA

R = Recommended: These finish combinations refer only to the consistency of the finish application and not the aesthetic beauty of the combination.

NR = Not Recommended: These finish combinations are problematic and do not meet standards for color consistency. They also highlight various other characteristics such as machine marks, shake and open end grain that will not be considered defective. NR combinations will receive a 20% upcharge to the design charge compensating for additional labor required by difficult combinations. Even if a sample door is purchased, we cannot guarantee that the next order will match that sample door. Northwoods will not guarantee color consistency on NR combinations.

NA = Not Available: Such combinations present application challenges which result in finish appearances Northwoods cannot consistently reproduce, and are not available.

Heirloom							
	Chesapeake	Classic Burgundy	Creamy Butter	Crystal White	Sage	Sandstone	Slate Blue
Alder							
Coffee	R	R	R	R	R	R	R
Pewter	R	R	R	R	R	R	R
Cherry							
Coffee	R	R	R	R	R	R	R
Pewter	R	R	R	R	R	R	R
Maple, Hard							
Coffee	R	R	R	R	R	R	R
Pewter	R	R	R	R	R	R	R
Paint Grade Hard Maple							
Coffee	R	R	R	R	R	R	R
Pewter	R	R	R	R	R	R	R
Oak, Red							
Coffee	R	R	R	R	R	R	R
Pewter	R	R	R	R	R	R	R

Brushed Glazes							
	Chesapeake	Creamy Butter	Crystal White	Frosty White	Sage	Sandstone	Slate Blue
Maple, Hard							
Caramel	R	NA	NA	NA	NA	NA	NA
Coffee	NA	R	R	R	R	R	R
Pewter	R	R	R	R	NA	NA	NA
Paint Grade Hard Maple							
Caramel	R	NA	NA	NA	NA	NA	NA
Coffee	NA	R	R	R	R	R	R
Pewter	R	R	R	R	NA	NA	NA

Laminate Match Finishes Program Summary

- Northwoods Laminate Match Finish Program is designed to closely approximate popular WilsonArt™ high-pressure laminates in use today. Manufacturers may use these stains on solid wood components in applications in which laminated parts such as end panels also appear.
- Specific wood species and customized wiping stains are combined to provide the most favorable match in appearance to the laminate.
- Popular laminates have also been matched on multiple species in some cases to provide more options for our customers. We recommend that a sample door be ordered prior to ordering a full kitchen to ensure that the match meets the customer's expectations.

Program Guidelines

- The species Northwoods uses for given laminate simulations have been selected for overall appearance and may or may not be the same as is used in the laminate nomenclature. For instance, Windsor Mahogany by WilsonArt™ is best achieved on White Birch (for further information on finish/species combinations see table below).
- Because Northwoods uses a consistent, non-opaque wiping process, factors such as wood color, natural characteristics and density can cause variation in the appearance of the final piece. Northwoods maintains control samples, which have been approved as the best match to given laminates. If the final piece matches the control sample within allowable limits, the product will be considered acceptable.
- Laminates are a man-made substance and tend to be consistent in color, texture and gloss. In contrast, wood is a product of nature and can vary greatly. Therefore, one door may match its laminate counterpart better than another in terms of color, grain, texture and gloss. Please note, Northwoods uses a 15° sheen topcoat on all laminate matched stains.
- There are numerous manufacturers of laminates in the industry. In many cases, manufacturers use the same name to identify laminates that bear no resemblance to each other. Products that are cross-referenced from one manufacturer to another may also vary slightly. For this reason, Northwoods has specifically chosen to match WilsonArt's™ high-pressure laminate. Our laminate match finish selection is based on the popularity of these laminates and our ability to complement their appearance on solid wood.

WilsonArt™ Laminate Match Finishes				
Product Name	Laminate No.	Stain Name	Wood Specie	Price Category
Banister Oak	7806-60	Banister	White Oak	Natural Finish
Fusion Maple	7909-60	Fusion	Hard or Soft Maple	Low Complexity
Natural Pear	7061-60	Natural Pear	Hard Maple	Low Complexity
Sanibel Maple	7908-60	Sanibel	Hard or Soft Maple	High Complexity
Wild Cherry	7054-60	Wild Cherry	Cherry	Low Complexity
Windsor Mahogany	7039-60	Windsor Mahogany	White Birch	High Complexity

Custom Finishing Pricing

Design and Material Charge for Custom Finishing		
Finish Category	Design Charge	Material Charge per square foot
Natural Finish		
Wiping stain, Low Complexity		
Wiping stain, High Complexity		
Colourtones (on wood)		
Colourtones with glazes (on wood)		
Colourtones (on MDF)		
Colourtones with glazes (on MDF)		
Colourtones (on hybrid*)		
Colourtones with glazes (on hybrid*)		
Colourtones with brushed glaze effect (on wood)		
Heirloom (includes glaze and Vintage Distressing package)		
Primed (on wood)		
Primed (on MDF)		
Primed (on hybrid*)		
Finish Options	Design Charge	Material Charge per square foot
Glazes		
Speckling		
Distressing level 1		
level 2		
Antiquing		
Custom Finish Match: Initial match charge is \$200.00 net; subsequent reorders are \$50.00.		
Finish Complexity/Color Selection		
Natural Finish	No stain; includes Banister finish on White Oak	
Wiping Stain	<i>Low Complexity</i>	Autumn, Colonial, Fusion, Ginger, Harvest Gold, Honey, Natural Pear, Nutmeg, Washington Cherry, Wild Cherry
	<i>High Complexity</i>	Alpine, Chestnut, Cordovan, Eucalyptus, Heather Blue, Mesa, Sanibel, Windsor Mahogany
Colourtones	Antique White, Chesapeake, Classic Burgundy, Creamy Butter, Crystal White, Designer White, Ebony, Frosty White, Sage, Sandstone, Slate Blue	
Heirloom	Chesapeake, Classic Burgundy, Creamy Butter, Crystal White, Sage, Sandstone, Slate Blue	
Glazes	Brown, Caramel, Coffee, Pewter, Sable, White	
Speckling	Black, Tan	

*Hybrid door is wood framing with MDF panel.

Ancillary Product Pricing

Ancillary Products Finishing Pricing		
Product	Design Charge multiplier	Material Charge rules
Open and Closed Louver Doors	3x	2 sq. ft. min.
Radius Door	2x	2 sq. ft. min.
Radius Mouldings (face only)	2x	2 sq. ft.
8 foot lineal Mouldings (face only) including Dentil, Rope and Egg & Dart	1x	3 sq. ft.
8 foot lineal Mouldings (face and back) including Dentil, Rope and Egg & Dart	2x	6 sq. ft.
Assembled Mouldings	2x	6 sq. ft.
Random Length Moulding (face only)	1x	3 sq. ft. per 8 ft. length
Random Length Moulding (face and back)	2x	6 sq. ft. per 8 ft. length
24" x 96" Pressure sensitive veneers	1x	7 sq. ft.
37" x 96" Phenolic-backed veneers	1x	8 sq. ft.
48" x 97" 2 Ply wood-backed veneers	1x	11 sq. ft.
Wainscot Panels finished one side and edges, back surface sealed but not stained	1x	actual sq. footage
finished both sides and edges	2x	actual sq. footage x 1.25
Wine Racks Standard*, Square*	3x	actual sq. footage
Deluxe*	5x	actual sq. footage
Half Round	2x	actual sq. footage
Appliance Garages	3x	7 sq. ft.
Plate Rack Holders, Stemware Holders	2x	actual sq. footage
Entry Level Range Hoods 30"	3x	5 sq. ft.
36"	3x	6 sq. ft.
Stanisci Range Hoods G, P, T Series (all sizes)	6x	25 sq. ft.
I, GRA, JRA, TRA Series (all sizes)	8x	25 sq. ft.
S, E, M Series (45" and less)	8x	25 sq. ft.
S, M Series (48" and wider)	11x	50 sq. ft.
W Series (all sizes)	11x	50 sq. ft.
Valances, Fluted Fillers (finished on face and sides only)	1x	actual sq. footage
Plywood Panels (1/8", 1/4", 3/4")	1x	actual sq. footage ÷ 2
Knee Brackets, Cleats	1x	actual sq. footage
Corbels	2x	2 sq. ft.
Appliques, Onlays	1.5x	1 sq. ft.
All other accent pieces	1x	1 sq. ft.
Table Legs, 3/4 Round Table Legs, Decorative Columns	3x	3 sq. ft.
Split Table Legs, Split Decorative Columns	2x	2 sq. ft.
Bun Feet, Split Bun Feet, Spindles, End Blocks	1x	1 sq. ft.
Assembled Corner post / Beveled backer	5x	5 sq. ft.

*Lattice wine racks are finished on the face and profiles only, a 25% upcharge will be incurred to finish the back. Pin holes on the back of lattice wine racks will not be puttied.

Stain/Glaze Sample Kits

Alder	Ash	Birch, White	Cherry
Stain/Glaze Autumn Autumn/Brown Autumn/Caramel Autumn/White Chestnut Colonial Cordovan Eucalyptus Ginger Harvest Gold Honey Honey/Sable Natural Heather Blue Honey Honey/Sable Mesa Natural Natural/Brown Nutmeg Nutmeg/Pewter Washington Cherry	Stain/Glaze Autumn Chestnut Colonial Colonial/Pewter Colonial/Sable Cordovan Eucalyptus Ginger Harvest Gold Honey Honey/Sable Natural Natural/Brown Natural/Caramel Natural/White Nutmeg Nutmeg/Pewter Washington Cherry	Stain/Glaze Alpine Alpine/Pewter Autumn Autumn/Brown Autumn/Caramel Autumn/Pewter Chestnut Colonial Cordovan Autumn/White Chestnut Colonial Harvest Gold Cordovan Eucalyptus Ginger Harvest Gold Honey/Sable Natural Harvest Gold Harvest Gold/Brown Harvest Gold/White Honey Honey/Sable Mesa Natural Nutmeg Washington Cherry	Stain/Glaze Autumn Autumn/Brown Autumn/Pewter Chestnut Colonial Cordovan Cordovan/Sable Ginger Harvest Gold Harvest Gold/Brown Harvest Gold/Sable Honey Honey/Brown Honey/Sable Natural Natural/Brown Natural/Caramel Nutmeg Nutmeg/Brown Nutmeg/Caramel Washington Cherry
Maple, Hard	Maple, Soft	Pine	Oak, Red
Stain/Glaze Alpine Alpine/Pewter Autumn Autumn/Brown Autumn/White Chestnut Eucalyptus Ginger Harvest Gold Harvest Gold/Brown Harvest Gold/Caramel Harvest Gold/White Honey Honey/Brown Mesa Natural Mesa/White Natural Natural/Caramel Natural/White Nutmeg Nutmeg/Brown Nutmeg/Pewter	Stain/Glaze Alpine Autumn Autumn/Brown Autumn/White Chestnut Eucalyptus Ginger Harvest Gold Harvest Gold/Brown Harvest Gold/Caramel Harvest Gold/White Honey Honey/Brown Mesa Natural Natural/Brown Natural/Caramel Natural/White Nutmeg Nutmeg/Brown Nutmeg/Pewter	Stain/Glaze Autumn Autumn/Brown Chestnut Colonial Colonial/Pewter Cordovan Eucalyptus Ginger Harvest Gold Harvest Gold/Brown Harvest Gold/Caramel Heather Blue Heather Blue/Brown Honey Natural Natural/Brown Natural/White Nutmeg Nutmeg/Brown Nutmeg/Pewter	Stain/Glaze Alpine Alpine/Pewter Autumn Autumn/Brown Autumn/Pewter Chestnut Colonial Cordovan Eucalyptus Ginger Harvest Gold Harvest Gold/Brown Harvest Gold/Caramel Heather Blue Heather Blue/Brown Honey Mesa Natural Natural/Caramel Natural/White Nutmeg Nutmeg/Brown Washington Cherry

Pricing per Set: \$50 net; Heirloom \$60 net
Specifications: Swatch size 4-1/4"x 6-1/8"

Swatch has G-012 groove on face
Each swatch individually labeled and dated

Sets are packed in a labeled file box, reducing the need to remove individual swatches for identification; this limits the exposure to light that accelerates color change.

Larger Swatch Size

Individual Northwoods Recommended and Not Recommended finishes are available on a 6-1/8"x 14" chip for \$10 net.

Stain/Glaze Sample Kits (continued)

Pecan/Hickory	Colourtones	Heirloom/ Brushed Glazes
Stain/Glaze	Ash	Alder
Alpine	Crystal White/Coffee	Sandstone/Coffee
Autumn	Cherry	Cherry
Autumn/Pewter	Chesapeake-Antiqued	Chesapeake/Coffee
Autumn/White	Ebony-Antiqued	Classic Burgundy/Coffee
Chestnut	Hard Maple	Crystal White/Pewter
Colonial	Antique White	Sage/Coffee
Colonial/Pewter	Chesapeake	Paint Grade Hard Maple
Colonial/Sable	Chesapeake/Caramel	Chesapeake/Pewter
Cordovan	Chesapeake/Pewter	Creamy Butter/Coffee
Cordovan/Sable	Chesapeake/White	Crystal White/Coffee
Eucalyptus	Classic Burgundy	Slate Blue/Coffee
Ginger	Creamy Butter	Red Oak
Harvest Gold	Creamy Butter/Coffee	Crystal White/Coffee
Heather Blue	Creamy Butter/White	Brushed Glazes on Paint
Honey	Crystal White	Grade Hard maple
Honey/Sable	Crystal White/Coffee	Chesapeake/Caramel
Natural	Crystal White/Pewter	Creamy Butter/Coffee
Natural/Brown	Designer White	Crystal White/Coffee
Natural/Caramel	Frosty White	Crystal White/Pewter
Natural/White	Frosty White/Coffee	
Nutmeg	Sage	
Washington Cherry	Sage/Coffee	
	Sandstone	
	Sandstone/Coffee	
	Slate Blue	

Pricing per Set: Wiping stain and Colourtone kits \$50 net; Heirloom/brushed glaze kit \$60 net

Specifications: Swatch size 4-1/4"x 6-1/8"
 Swatch has G-012 groove on face – except for the Heirloom chips which are 3/4" thick profiled swatches.
 Each swatch individually labeled and dated

Sets are packed in a labeled file box, reducing the need to remove individual swatches for identification; this limits the exposure to light that accelerates color change.

Larger Swatch Size

Individual Northwoods Recommended and Not Recommended finishes are available on a

Duraguard® System Overview

- Duraguard® is a complete finishing material program designed to make it easy to match Northwoods pre-finished products, in which all the base finishes, sealers and topcoats work together to create a lasting finish on our customer's components.
- Duraguard® provides raw finishing materials, step by step instructions, access to our in-house finishing professionals and support products such as touch up kits.

Duraguard® System Features

- Access to all of Northwoods topcoats, sealers, stains and other raw materials.
- Step-by-step instructions mailed with every quart and gallon of finishing material detailing how to mix raw materials, sand the wood, apply the finish and spray the topcoat.
- Access to our finishing staff at (717) 445-3252 every working day, from 7:00 a.m. to 3:30 p.m. Eastern Standard Time. We are dedicated to answering any finishing questions our customers may have.
- Inexpensive touch up kits to hide scratches or blemishes incurred in our customers' shop. Our customers will find these kits also make a great gift for their satisfied customers.

Duraguard® System Disclaimers

- Northwoods finishes are industrial in nature, unlike finishes purchased at a retail store. Although they offer a higher quality than most stains, Northwoods finishes are also more combustible, more volatile and require a greater level of expertise to apply.
- Due to the complexities involved with any finishing process, Northwoods will not be liable for any damages or injuries resulting from the use of this product, even if every precaution is taken by the customer. Northwoods liability is limited to the original purchase price of the finishing material.
- In order to best match any Duraguard® stain color, it is important to follow the processes outlined in our instruction documents. These instructions are found in this section of the manual. If the proper steps are not followed, the finished product may not match the finished doors that were purchased from Northwoods. However, please bear in mind that following these procedures will not always guarantee an exact match.
- Due to the many variables involved in any finishing process, Northwoods assumes no responsibility if products stained by the customer using the Duraguard® system do not produce an exact match to prefinished products purchased from Northwoods
- The Duraguard® Finishing System is scientifically designed so that each of the materials, from base stain to topcoat, work with one another, thereby providing a beautiful protective finish for our customer's wood products. Finishing products not sold by Northwoods may react unfavorably to the Duraguard® finishing materials causing poor topcoat adhesion, discoloration or other problems.

Duraguard® Packaged Finish Pricing

Product	cost per unit:	Quart	Gallon	5 Gallon additional lead-time required
Alpine Wiping Stain				
Autumn Wiping Stain				
Chestnut Wiping Stain				
Colonial Wiping Stain				
Cordovan Wiping Stain				
Eucalyptus Wiping Stain				
Ginger Wiping Stain				
Harvest Gold Wiping Stain				
Heather Blue Wiping Stain				
Honey Wiping Stain				
Mesa Wiping Stain				
Nutmeg Wiping Stain				
Washington Cherry Wiping Stain				
Primer (catalyst and thinner sold separately)		–		
Antique White Colourtone (5008 catalyst not included)		–		
Chesapeake Colourtone (5008 catalyst not included)		–		
Classic Burgundy (5008 catalyst not included)		–		
Creamy Butter Colourtone (5008 catalyst not included)		–		
Crystal White Colourtone (5008 catalyst not included)		–		
Designer White Colourtone (5008 catalyst not included)		–		
Ebony Colourtone (5008 catalyst not included)				
Frosty White Colourtone (5008 catalyst not included)		–		
Sage Colourtone (5008 catalyst not included)		–		
Sandstone Colourtone (5008 catalyst not included)		–		
Slate Blue Colourtone (5008 catalyst not included)				
Brown Glaze				
Caramel Glaze				
Coffee Glaze				
Pewter Glaze				
Sable Glaze				
White Glaze				
Speckling Material (black or tan)				
Sealer (5008 catalyst not included)		–	–	
15° Conversion Varnish Topcoat (5008 catalyst not included)		–	–	
40° Conversion Varnish Topcoat (5008 catalyst not included)		–	–	
Catalyst 494 (used with primer material only)				
Catalyst 5008 (used with Colourtone, sealer and topcoats)		–	–	
Thinner 1 (used with primer material only)				

Standard lead-time for stain is 3 days for quantities of 5 gallons or less of the same material. Lead-time for order quantities over 5 gallons of any single stain, Colourtone, glaze, primer, thinner, catalyst, topcoat or sealer is 15 working days and can only be shipped by common carrier.

Custom stain match materials are mixed on a per-order basis and cannot be expedited.

Heirloom finishes utilize Colourtone materials.

Touch up kits include a stain marker and fill stick and are available for each of our wiping stains and glazes: \$9.50 net charge per kit. Colourtones, Eucalyptus and Heather Blue Wiping Stains are available at \$15.95 net charge per kit.

Duraguard® Finishing Instructions

All Wiping Stains (except Alpine)

- White wood sand with an oscillating palm sander using 180 grit sandpaper.
- Apply wiping stain over wood. Wipe all surfaces clean with lint free rag.
- Allow wiping stain to dry for a minimum of 1 hour.
- Spray sealer to approximately 3-1/2 wet mil thickness.
- When the sealer is completely dry, sand sealer with fine grit (220-280) sandpaper using an oscillating palm sander on all flat surfaces. Hand sand all profiles with 220 grit sandpaper.
- Spray on topcoat to approximately 4 wet mil thickness.
- Allow topcoat to dry for a minimum of 2 hours before handling.

Alpine Finishing Process

Use this process to match Northwoods Alpine Stain.

- White wood sand with an oscillating palm sander using 180 grit sandpaper.
- Moisten wood surface with water. Allow wood to completely dry. This will open the grain allowing penetration of stain.
- Apply Alpine wiping stain over wood. Wipe all surfaces clean with a lint free rag.
- Allow Alpine wiping stain to dry for a minimum of 2 hours.
- Spray sealer to approximately 3-1/2 wet mil thickness.
- When sealer is completely dry, sand sealer with fine grit (220-280) sandpaper using an oscillating palm sander on all flat surfaces. Hand sand all profiles with 220 grit sandpaper.
- Spray on topcoat to approximately 4 wet mil thickness.
- Allow topcoat to dry for a minimum of 2 hours before handling.

Glaze Over Wiping Stains

Use this process to apply glazes over all Northwoods Wiping Stains.

- White wood sand with an oscillating palm sander using 180 grit sandpaper.
- Apply wiping stain over wood. Wipe all surfaces clean with lint free rag.
- Allow wiping stain to dry for a minimum of 1 hour.
- Spray sealer to approximately 3-1/2 wet mil thickness.
- When sealer is completely dry, hand sand all surfaces using 320 grit sandpaper. Make sure to sand in same direction as the wood grain.
- Apply the glaze to the entire surface and wipe the excess glaze off with a lint free rag, leaving the desired amount of glaze in profiled areas. When matching existing products, make sure the same amount of glaze is left on the surface of the product being glazed as is on the product to be matched. Allow glaze to dry for a minimum of 8 hours.
- Spray on low sheen topcoat to approximately 4 wet mil thickness.
- Allow topcoat to dry for a minimum of 2 hours before handling.

Duraguard® Finishing Instructions (continued)

Mixing Topcoats / Sealers

Use this process when matching products finished by Northwoods.

- Thoroughly agitate topcoat material, making sure there is no residue on the bottom of the can. Topcoat needs to remain under continuous agitation during catalyzation and use.
- Slowly pour the pre-measured container of 5008 catalyst into the gallon container of sealer or topcoat. *Agitation must be continuous. Do not over catalyze!*
- Once the catalyst has been added, the mixture has an 8 hour “pot life”. After this 8 hour time frame, the mixture begins to cure rendering it not usable.
- Catalyst ratios are listed below and can also be found on the product container label.
- We strongly recommend against attempting to extend the pot life of sealer or topcoat by adding virgin material, as it will disrupt the catalyst ratio.

Material	Catalyst Ratio
Sealer	4.0 ounces of catalyst 5008 per gallon
Low sheen topcoat	5.0 ounces of catalyst 5008 per gallon
Standard sheen topcoat	5.0 ounces of catalyst 5008 per gallon

Colourtones

Colourtones are two-part catalyzed basecoats, high in solids and similar to paint in appearance. Colourtone finishing material is non-catalyzed when purchased and must have catalyst added prior to application. These coatings are very durable and resistant to moisture.

Colourtones and Catalyzation

Colourtones are acid catalyzed opaque basecoats. They have superior film build, adhesion, excellent sanding properties and moisture resistance. It is extremely important to keep these materials thoroughly agitated while spraying. Colourtone coatings require the addition of an acid catalyst in order to cure. Since the catalyst has corrosive properties, neither the catalyst nor the catalyzed material should ever be stored in an unlined metal can. Thoroughly agitate material prior to the addition of catalyst. Add catalyst and continue agitation for 5 minutes prior to spraying the material. *Do not over catalyze!* After catalyzation, Colourtone material will have a maximum pot life of 8 hours.

Colourtone materials also have a limited amount of time between the application of the second coat of Colourtone and application of topcoat. In order to achieve the proper chemical bond between coats, topcoat must be applied within 24 hours after applying the second coat of Colourtone. This time frame remains the same for both glazed and unglazed products. The Colourtone system has been formulated using Northwoods 15° conversion varnish as a topcoat. The use of any other topcoat material may result in lifting, discoloration, poor adhesion, cracking, poor moisture resistance, and other finish related problems. Northwoods recommends the use of only Duraguard® topcoat over the Colourtones.

Surface Preparation For Colourtones

Fill all open voids with wood putty, sanding off excess putty. Sand with an oscillating palm sander using 180 grit sandpaper.

Duraguard® Finishing Instructions (continued)

Spraying Colourtones

- Add 4 ounces catalyst per gallon of thoroughly agitated Colourtone material. Mix only what you will be able to use in a 6 to 8 hour period. Keep under constant agitation.
- Spray Colourtone to a thickness of 3 to 3-1/2 wet mils.
- Allow first coat of Colourtone material to dry for a minimum of 1 hour.
- Sealer sand the entire surface with 280 or 320 grit sandpaper.
- Spray a second Colourtone coat to a thickness of 3 1/2 to 4 wet mils.
- Allow the second coat to dry 2 hours before applying glaze or topcoat. A topcoat must be applied within 24 hours, whether product is glazed or unglazed.

Glaze over Colourtones

- Apply the glaze to the entire surface after the second coat of Colourtone is fully dry. Glaze may be applied with a rag and/or a brush.
- Wipe glaze off surfaces immediately using a “selective” wiping technique, leaving behind the desired amount of glaze in the profiled and flat areas. If matching to Northwoods pre-finished products, ensure that the same amount of glaze is left in profiled areas and flat surfaces as on the Northwoods product.
- Allow glaze to dry a minimum of 6 hours.
- Spray with Northwoods Duraguard® 15° conversion varnish topcoat to a thickness of 3-1/2 to 4 wet mils.

Other Colourtone Options

- **Antiquing:**
Sand through the Colourtone material to expose raw wood on profiled areas and edges prior to applying glaze and topcoat to simulate an aged, worn appearance. The amount of and location of Antiquing should vary by personal preference.
- **Speckling:**
Apply speckling with a speckling gun or “flick” with a paintbrush after the Colourtone and glaze dries, but prior to the application of the low sheen topcoat. The amount of speckling should vary by personal preference.

Topcoat over Colourtones

- Thoroughly agitate topcoat material, ensuring there is no residue on bottom of can.
- Add 5 ounces of catalyst per gallon of 15 sheen topcoat and agitate for 5 minutes prior to spraying. *Keep topcoat under constant agitation.* After catalyzation, the material has an 8 hour pot life. We do not recommend extending pot life by adding virgin material, as this will disrupt your catalyst ratio.

*Duraguard® Finishing Instructions (continued)***Primer**

Northwoods primer is a white, post catalyzed, acid cured primer compatible with many high quality topcoats. While there are many topcoats available on the market today, Northwoods recommends only acid cured conversion varnish topcoats.

- Thoroughly agitate primer, ensuring there is no residue on bottom of can. Add catalyst and thinner while primer is under agitation in a lined metal can or plastic container.
- Add 18 oz. Thinner 1, and 16 oz. catalyst 494 to one gallon of primer. Pot life after catalyzation is 6 to 8 hours. Keep material under constant agitation.

Heirloom Finish Treatment

Northwoods Heirloom finishes duplicate the look of time worn cabinetry. In order to successfully perform the Heirloom finishing process you will need to have an Heirloom door finished by CWS to use as a guide for your finishing processes.

Surface Preparation

- White Wood Sand with a random orbital sander using 180 grit sandpaper, rounding off all sharp corners, and referring to your CWS sample as a guide.
- To replicate Northwoods Wear Sanding option, round off corners of raised panel and exterior corners of framing using an orbital palm sander. The rounding of these corners is essential to replicate the Northwoods Heirloom finish appearance.

Distressing

Study the distressing marks on your Heirloom sample that was finished by Northwoods. You will need to duplicate these marks on your cabinetry. Northwoods uses various metal objects to create the indentations; such as cut nails and various shards of metal. Refer to your sample door finished by Northwoods frequently to ensure a uniform amount of distressing.

- The nails and other items may be laid on the surface you are distressing and tapped lightly with a hammer to create these impressions. You may want to create your own tools by embedding these items into a wooden rolling pin or a wooden mallet. The rolling pin can then be rolled across the surface or the surface may be tapped with the mallet, creating the desired impressions.
- Split joints are replicated by cutting along the joint with a retractable razor knife. Simulated worm holes are created by randomly striking the piece with the point of an awl.
- Rasp marks are created on exterior edges by placing a wood rasp on the edge of the product at an angle and pressing it into the wood, using a filing type of motion.

Spraying Colourtone

- Thoroughly agitate Colourtone material, add catalyst while material is under agitation in a lined metal can or plastic container. Add 4 oz. of catalyst 5008 to all Heirloom Colourtones, except Ebony. Pot life after catalyzation is 6 to 8 hours. Keep material under constant agitation.
- Spray Colourtone to a thickness of 3 to 3-1/2 wet mils.
- Allow Colourtone material to dry for a minimum of 2 hours before sanding.

*Duraguard® Finishing Instructions (continued)***Antiquing**

After allowing Colourtone material to dry, the entire piece must be sanded with an oscillating palm sander and 220 grit sandpaper. Follow the rounded areas that have been previously created in the Wear Sanding process, sanding through the Colourtone material to expose bare wood. This sanding step should be done in a random fashion, focusing on various areas of the product, referring frequently to the sample door finished by Northwoods. Keep in mind to focus on areas that would typically show the most wear from everyday use.

Glaze over Heirloom Colourtones

- Apply the glaze to all surfaces after the Colourtone material is fully dry and antiquing process is complete. Glaze may be applied with a rag and/or brush.
- Wipe glaze off surfaces immediately using a "selective" wiping technique, leaving behind the desired amount of glaze in the profiled and distressed areas. If matching to Northwoods pre-finished products, ensure that the same amount of glaze is left in profiled areas and flat surfaces as on the Northwoods product.
- Allow the glaze to dry a minimum of 6 hours.

Speckling Option

Speckling is a process that duplicates fly specks.

- The Speckling material is randomly applied after the glaze dries by using a special gun or by "flicking" with a paint brush or tooth brush. Refer to your door sample finished by Northwoods to ensure the application of the proper amount of speckling.
- Allow speckling to dry for 1 hour prior to application of topcoat.

Topcoat over Heirloom Colourtones

- Thoroughly agitate topcoat material, ensuring there is no residue on bottom of can.
- Add 5 ounces of catalyst per gallon of 15 sheen topcoat in a lined metal can or plastic container and agitate for 5 minutes prior to spraying. Keep topcoat under constant agitation. After catalyzation, the material has an 8 hour pot life. We do not recommend extending pot life by adding virgin material, as this will disrupt your catalyst ratio.
- Spray a 3 to 4 wet mil coat and allow to dry for a minimum of 4 hours before handling.
- Allow topcoat to dry for a minimum of 4 hours before handling.

Brushed Glaze Effect

The look of brushed on glazes is created by using precise sanding techniques on the second coat of Colourtone material, then hand wiping the glazing material over the sanded Colourtone base color. You will need sanding sponges to duplicate the technique used on your purchased pre-finished parts. Northwoods uses 3M Sandblaster 80 grit sanding sponges, part no. 20908-80.

Surface Preparation for Colourtones

- Sand with an oscillating palm sander using 180 grit sandpaper.
- Fill all open voids with wood putty, sanding off excess putty material.

Duraguard® Finishing Instructions (continued)

Spraying Colourtones

- Thoroughly agitate Colourtone material, add catalyst while material is under agitation in a lined metal can or plastic container. Add 4 oz. of catalyst 5008 to Colourtone material. Pot life after catalyzation is 6 to 8 hours. Keep material under constant agitation.
- Spray Colourtone to a thickness of 3 to 3-1/2 wet mils.
- Allow first coat of Colourtone material to dry for a minimum of 1 hour.
- Sealer sand the entire surface with 280 or 320 grit sandpaper.
- Spray a second Colourtone coat to a thickness of 3-1/2 to 4 wet mils.
- Allow the second coat to dry 2 hours before performing the sanding “scratch technique”.

Creating Brush Stroke Effect

- Holding the 80 grit sanding sponge firmly, apply moderate pressure, sanding in straight lines with the direction of the wood grain. Always use a continuous stroke from one end of the piece to the other with the grain direction, making two passes with the sanding sponge over all surfaces to achieve the proper amount of etching.
- Take care to minimize the overlap at joints or anywhere that the horizontal and vertical scratches intersect. While some overlapping will occur at most joints and panel raise corners, steps should be taken to limit overlapping. Any overlapping will result in the presence of both horizontal and vertical scratches on the same surface area.
- After sanding step is complete, apply the glaze material using a circular motion to ensure that the glaze fills the sanding scratches. Remove excess glaze, wiping in the same direction as sanding scratches. To touch up or highlight areas where the scratches are not prominent, simply repeat the sanding process, re-apply glaze and wipe off excess.
- Allow glaze to dry for a minimum of 6 hours.
- Spray with Northwoods Duraguard 15-degree conversion varnish topcoat to a thickness of 3 to 4 wet mils.

Duraguard® Finishing Instructions (continued)

Legal Disclaimers

Northwoods Duraguard® finishes are industrial in nature, unlike stains purchased at a retail store. Although, Duraguard® offers a higher quality finish than most stains, it also is more combustible, more volatile and requires a higher level of expertise to apply. Due to the complexities involved with any finishing process, Northwoods will not be liable for any damages or injury resulting from the use of this product, even when the customer has taken precautions. Northwoods liability is limited to the original purchase price of the finishing material.

In order to best match any Duraguard® stain color, it is important to follow the processes outlined on the previous pages. If these steps are not followed, your finished product may not match the products purchased from Northwoods. However, please bear in mind that following these procedures will not always guarantee an exact match. Due to the many variables involved in any finishing process, Northwoods assumes no responsibility if products that are finished by the customer using the Duraguard® system are not an exact match to the finished products sold by Northwoods.

IMPORTANT NOTE: All drying times mentioned in this document are to be used as guidelines only. The actual drying time will vary according to the climate in which the finish is applied.

The Duraguard® finish system is scientifically designed so that each of the materials, from base stain to topcoat; work with one another, thereby providing a beautiful protective finish for your wood products. Finish materials not sold by Northwoods may react unfavorably with Duraguard® finishing materials causing poor topcoat adhesion, discoloration or other problems.

Color variation can occur on separately ordered jobs. Northwoods cannot guarantee color matches on material ordered at different times. Length of time between orders may also be a factor affecting color variation. Environmental factors where existing material is stored or installed may affect finished products to the degree of causing an appearance different to that of a newly finished product. To better ensure consistency of appearance, Northwoods recommends against placing partial orders.

Refer to MSDS for safety and handling information.

Care and Cleaning of Fine Kitchen Cabinetry

The Duraguard® topcoat offers the utmost protection for kitchen cabinet applications. Duraguard® topcoats provide superior chemical and common kitchen stain resistance while maintaining color and sheen.

Duraguard® topcoat requires minimal care and cleaning. We recommend periodic cleaning with a mild detergent and water solution to remove dirt, dust and grease that buildup with routine usage. Dampen a soft, non-abrasive cloth and wipe entire exterior surface of cabinetry; dry with a soft cloth. Never use a wet cloth that allows water to run down the cabinetry and always dry cabinetry immediately if water is spilled onto the surface.

Care should be taken not to use abrasive cleansers, ammonia, or any other type of harsh chemical. These cleaning agents may cause discoloration, scratching, marring, and dulling of the finish. We also discourage use of furniture polishes and waxes on finished cabinetry. Furniture polishes alter the original sheen level and may leave a film on the surface that attracts dust and dirt. These polishes may also cause an irregular or blotchy appearance because they are unable to stand up to many common kitchen stains.