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**FINGUARD**  
ANTI-FINGERPRINT LAMINATES

# MERINO FINGUARD LAMINATES TECHNICAL GUIDE

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# 1 INTRODUCTION

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Finguard is a special laminate that has incredible resistance to fingerprints, with a satin-smooth, luxurious surface. The decor paper in Finguard laminates is EB Cured, which significantly reduces the porosity of the surface. Finguard is also antibacterial which makes it highly recommended for horizontal surfaces such as premium tabletops that see heavy use. The surface gives a satin smooth feel.

Finguard laminates are classified as HGS/VGS grade under EN438 standards, and have all the properties of a standard HPL sheet, as well as increased resistance to fingerprints and marks.

# 2 PRE-FABRICATION

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Please follow the pre-fabrication guidelines carefully.

## 2.1 TRANSPORT, STORAGE & HANDLING

All transport, storage and handling guidelines for Merino's HGS grade, decorative laminates are also applicable to Finguard laminates. Key points to consider-

- **TRANSPORT**

Finguard Decorative Laminates must be transported laid flat.

While being transported, it is recommended to keep protective boards on the top and bottom of the stack. Use protectors on the edges, as cracked corners can cause issues during fabrication.

- **HANDLING**

While handling Finguard Decorative laminates, precautions must be taken. Avoid damage to the product- especially the edges.

Decorative faces may get damaged on sliding over other surfaces, including other laminate sheets. To avoid any possibility of damage, always lift the sheets while handling them.

Merino recommends the use of 2 workmen to lift the sheet, especially if the sheets are sized over 3.5 feet. Always ensure the workmen walk at a steady pace, holding the sheet with limited slack, as excessive bowing can strain the surface of the laminate.

Never allow the laminates to touch the ground or the walls while they are being carried.

If forklifts and similar mechanized vehicles are used to load or unload a vehicle, ensure that the pallets are clean and structurally sound.

- **STORAGE**

Merino Finguard sheets should be gently stacked over each other in a horizontal manner, in a back-to-back configuration. The sheet at the bottom of the stack must have the decorative face downwards, with a flat, protective layer.

Use a protective, flat board at top and bottom of the stack. This helps maintain a uniform pressure on the sheets and prevent any warpage in bulk stock. In case such a board is not readily available, the topmost sheet may be placed with the sanded side upwards instead.

## 2.2 PRECONDITIONING & THE ENVIRONMENT

Preconditioning is one of the most important considerations for achieving a quality product installation.

Follow the preconditioning guidelines as laid down in the document for standard grade High Pressure Laminates. The best approach is to make sure both sides of the laminate panel as well as the substrate experience the exact same conditions. In most cases the recommended conditions are storing the entire stock (liner, backer, adhesives, substrate) at 24C temperature and 55% relative humidity for 48 hours. These numbers may vary slightly depending on general environment conditions in the geographical area.

Stored stock of laminate should be rotated such that older sheets are used first. The place of storage should be well ventilated and protected from moisture. Laminates should never be in direct contact with the floor or outside walls.

All preconditioning should be performed at the fabrication site.

## 2.3 SUBSTRATES & ADHESIVES GUIDANCE

Generally, Merino Finguard laminates can be paired with any substrate that is recommended for Merino's HGS grade decorative laminate.

Common substrates recommended for laminates include- MDF and Particleboard.

Choose a suitable adhesive for bonding, and always follow the adhesive manufacturer's guidelines and documentation.

In addition, care should be taken to ensure proper balancing of the final panel by opting for a high pressure balancing or high-pressure phenolic laminate known as Backer, on the other side of the substrate.

# 3 FABRICATION

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Finguard laminates are mostly used in horizontal applications where moderate wear and use is expected. Fabrication of Finguard laminates for most residential and commercial applications can be done using both Power tools as well as Manual tools.

Proper fabrication of Finguard laminates allows for an aesthetic look and a luxurious surface that lasts for a long time.

## 3.1 CUTTING

Merino Finguard laminates can be cut with cutting tools recommended for Merino's standard grade laminates.

Some guidelines to get best results and prolong tool life-

- Circular saws are recommended for cutting Finguard sheets, High tool speeds and low feed speeds are preferred. Use sharp, TCT blades with a low or negative hook angle.
- When cutting the laminate to size using a stationary or table saw, ensure the sheet is flat on the saw table. The decorative face should face up and exit angles that reduce chances of chipping on the underside should be preferred. Use a sacrificial board and add a guide to serve as a fence, this helps reduce flutter during movement of the sheet through the saw

blade. Always ensure that the blade cuts cleanly through the surface, and that the blade doesn't become too hot.

- The use of a scoring blade in a climb cut configuration can help improve the quality of the cut and reduce the possibility of damage to the laminate. Such a scoring blade is smaller in size than the main blade, cuts to limited depth and rotates in opposite direction (along the direction of the feed) to that of the main blade. Care must be taken to prevent kickback or backlash.

### 3.2 BONDING AND TRIMMING ADVICE

Before bonding the laminate to the substrate, follow the Prefabrication checklist to ensure the right selection of substrate and adhesives for the project.

Some key points for bonding-

- Use dowels or separators to line up coated surfaces before allowing them to bond together.
- In case plywood is used as a substrate for laminates, check to see if the first coat of adhesives has been mostly absorbed by the plywood. In such a scenario, apply a second coat.
- If using a liquid adhesive, ensure that the adhesive is homogenous. Always apply an even layer of adhesive, using a roller or brush. In case a spray adhesive is used, ensure an even spray all over the surface in a controlled fashion.
- When using contact adhesive, don't allow the coated surfaces to touch until both the surfaces have dried.
- Always lay the laminate onto the substrate with even pressure. Applying too much pressure may damage the surface or the bond.
- Complete the bond by using a J roller to force any air bubbles from between the two surfaces.

If adhesives come in contact with the decorative surface, remove them carefully using adhesive removers or hexane (only for contact adhesive). Use of thinner is not recommended.

Once bonding of the panel assembly is complete, trimming is needed to remove the oversized edges of the assembled panel. Follow the trimming advice of standard, decorative HPL.

Always trim the edges flush with the laminate surface. The tools used for trimming must be sharp and well maintained.

Routers are commonly used to trim the edges, though a hand trimer such as a bevel cutter can also be used. Generous bevels and radii up to 2.5 mm may be produced at the arrises, but it should be remembered that such large bevels and radii require more finishing to blend with the surrounding surface.

Following the trimming process, edges must be routed smooth.

### 3.3 CUT-OUTS AND FASTENERS

Finguard laminates are often used in office tables where there may be a requirement to create an opening for electrical fittings such as outlets and projectors. In this case, a good quality cutout and fitting of grommets will help enhance the aesthetics of the surface.

Do not use square-cut inside corners. Otherwise stress cracking or breakage may occur while replacing an electrical fitting later. All internal corners and cut-outs should be rounded as far as

possible. A radius of 3 mm (1/8") or larger in the corners is recommended to minimize stress cracking. For larger sized cuts, the radius must also be increased.

The use of non-rigid, elastomeric adhesives such as contact adhesives may cause stress cracking. When contact adhesives are used, the minimum radius for inside corners must be 5mm.

All cut-outs should be routed or filed to ensure smooth edges.

All attachments that are damaged or prone to damage/accelerated wear can be detrimental to the user and the laminate as well. Ensure that only high-quality fasteners and attachments are used.

### 3.4 DRILLING

Some guidelines-

- When it comes to tool selection, an electric drill with HSS bits is the tool of choice for most kinds of drilling applications. Another important selection to be made is the type of bits used in the drill. While TCT bits may prove to be economical due to their long life, Rectified HSS bits are sharper. Longer tool life helps improve reproducibility while sharper blades improve the quality of the cuts.
- In case of non-stationary drills, it is important to ensure the appropriate pressure is applied. Pressure should be scaled up and down in a gradual manner, especially during entering and exiting the laminate. By controlling the feed speed of the drill, the panel is less likely to be damaged.
- At least 1.5mm of material should be left while blind drilling. When drilling into the edge, at least 3mm clearance should remain on all sides of the hole.
- Screws and bolts should be slightly countersunk. Use a lower rotational speed to make countersunk holes. Drill oversize holes (at least 0.5 mm or 0.02" larger in diameter) for screws and bolts. This allows the screw to adjust with the slight dimensional movements of both the laminate and the screw, preventing cracks around the hole.
- When drilling through-holes, ensure a hardwood panel is placed at the exit face. This prevents any splintering or shocks to the material surface when the drill exits the material.
- Edges of the hole should be smooth and cleaned after drilling. Otherwise stress cracking may occur.

### 3.5 EDGE PROFILING & FINISHING

As Finguard laminates are generally used in areas where there is high wear, it is recommended to have a smooth, sealed edge. This will be highly aesthetic and ergonomic.

A smooth edge can be achieved by using sandpaper or a manual file. Finishing may also be done using use a sanding belt be no coarser than 100 grit, taking care to always work towards the substrate to prevent surface chipping.

Edge banding tape and other capping material can also be used to seal the edges.

## 4 POST FABRICATION

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Once the fabrication of Finguard laminates is completed, it is safe to remove the protective film. Please ensure the film doesn't stay on the surface beyond a few months as it may leave a residue on the surface that can become hard to remove with time.

## 5 MAINTENANCE & CARE

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An extreme matt, scratch and almost non-reflective surface with anti-fingerprint properties. At a touch of the **MERINO FINGUARD** structure your natural greasy film of your fingers will be prevented to leave marks on the surface. Nevertheless, this surface has also set limits. **MERINO FINGUARD** does not have self-cleaning properties.

*Marks based on sweat, oily or dirty fingers must be cleaned with a damp cloth and a little dish soap or in case of stronger dirtying with a melamine foam.*

### A. Maintenance and Cleaning

#### 1. Maintenance

- a. **Abrasives:** Abrasive pads, scouring powders or cleansers may permanently damage the laminate surface making it susceptible to staining
- b. **Harsh chemicals:** Harsh chemicals such as oven cleaner, toilet cleaner, or drain cleaner will etch and discolor the decorative surface. High Pressure Decorative Laminates are not designed to resist continual contact with these chemicals. If any of these products spill over the surface, remove immediately, rinse thoroughly, and wipe dry
- c. **Hot objects:** Even though HPL is high heat resistance, exposure to temperatures greater than 135°C (275°F) is not recommended. Hence, do not place hot frying pans or dishes directly from the oven or cook top on the laminate surface. As a precaution, protect the surface from heat generating appliances such as pressing irons, toasters, curling irons and electric cookers by using a trivet or insulated pad. Prolonged exposure to temperatures above 65°C may result in separation of the laminate from the substrate.
- d. **Sharp objects:** Never use knives or other sharp objects directly on the decorative surface. Use of chopping block or counter saver is recommended.
- e. **Impact:** Even though High-Pressure Decorative Laminates have excellent impact resistance, chipping or cracking may occur.
- f. Do not abuse Finguard surface by dropping heavy objects such as cans, dinnerware, or glasses or deliberately hammering directly on the surface.

#### 2. Cleaning

In order for you to enjoy Merino Finguard surface for a long time, here is a guide on cleaning and maintaining Merino Finguard with simple cleaning agents and which cleaning agents you should avoid.

We strongly recommend cleaning the Finguard surface immediately after soiling by wiping with a damp cloth, or with the recommended cleaning agents and accessories.

#### **Stain Removal:**

For the cleaning of daily used liquids and substances such as coffee, tea, mustard, ketchup, oil / fat, balsamic, lemonade, butter, wine, pencil, shoe polish ... you need water, a damp cloth, washing –up liquid and a **melamine foam**.

There are cleaning agents which are recommended as being suitable, and cleaning agents which are not recommended:

**Recommended:**

- Common dish washing liquids
- Clean water
- Melamine foam
- Soft micro-fiber cloth
- Soft terry toweling cloth

**NOT recommended:**

- Abrasive cleaning materials such as steel sponge, steel wool or stainless-steel scrubbing pads, sponges with a sanding fleece like Scotch Brite.
- Abrasive creamy cleaners and cleaning powders.
- Pointed or sharp objects like a knives, blades or scrapers.
- Concentrated acids/ alkalis.

Usage of these aids will irrevocably damage the Merino laminate surface & its properties.

**TOUGH HARD TO REMOVE STAINS:**

**Melamine foam** can be used to remove more dirtier marks on the Finguard surface as mentioned below:

- a. If the stain has already dried, please place a wet cloth soaked with some washing liquid on the affected area (about 1-2 minutes, for coarse residues leave a little longer). Please remove the dissolved residues with the wet cloth. If the residues cannot be completely removed with the help of the wet cloth, please use a wet **melamine foam** with some washing –up liquid. For a streak free finish, we recommend rubbing the wet surface until it is slightly foamy and then cleaning it with a sponge or clean soft cloth and clear water. Wipe the wet surface dry with a terry cloth/ towel.
- b. For tougher hard to remove stains, such as pen, inks, markers, permanent markers, lipstick, graffiti spray, we recommend the use of methylated spirits or acetone/ nail varnish remover, a paper towel and the melamine foam.
- c. If the stain has already dried, place the paper towel soaked with some acetone/ nail varnish remover or methylated spirits on the affected area (for about 1-2 minutes, for coarse residues leave a little longer).
- d. Please remove the loosened remains with the paper towel and then remove the last residues with the **melamine foam**.
- e. For dried blood, please moisten the affected area with a little laundry detergent and water for 5 minutes and then remove the residue with the **melamine foam**. Water marks /chalky deposits are easily to remove with some citric acid or vinegar (leave about 5 minutes, if possible, longer). You can then remove the stains by using the **melamine foam**.





In general, we advise you to clean Merino laminate surface promptly after soiling with a damp cloth or the recommended cleaning agents for you to enjoy the surface for many years to come.