

How To Finish MDF & HDF

*Using Solvent Based
and
Water-Based Finishes*



**Hood Finishing Products, Inc.
and HYDROCOTE® Co., Inc.**



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MATERIAL OF CONSTRUCTION

MDF (Medium Density Fiberboard) provides many unique advantages over most other composition wood sheet material. Smoothness, surface stability, resistance to cracking due to elimination of joints and, cost per square foot are some of the advantages. MDF can be constructed of small particle size hard woods, soft woods, combination of both and, in some case, even paper (recycled) is added. An adhesive is added to the mixture then compressed under high pressure. Grades of MDF are identified by the amount of pressure used to compress the wood fibers. The higher the pressure that can be used in the manufacture of the board, the smaller the particle size wood fibers to be employed thus resulting in greater density, smoothness and stability to the surface. Greater stability to the surface means superior cutting and grooving possibilities. Greater density and smoothness to the surface provides a smooth and uniform finish requiring fewer coats to produce a good finish. An MDF rated at 48 pounds per cubic foot or greater is highly recommended for best finishing results. It can be easily finished on perpendicular and folded edges without the need for elaborate filling or other bonded edging materials.

Some board is supplied UV filled called High Density Fiberboard (HDF) which provides a very dense and smooth surface for finishing. It is very important that a UV filled board is well sanded prior to finishing to assure proper adhesion. The flat surfaces on UV filled MDF should be sanded with 280-320 grit no-fill sandpaper and finished as soon as possible after sanding. A finish applied to an unsanded UV filled MDF may craze or peel.

APPLICATION TECHNIQUES

For best results, please follow label directions prior to using any finish.

SOLVENT-BASED FINISHES

LOWER GRADE MDF BOARD

1. Sand all flat surfaces with 220 grit production paper and all routed areas with 280-320 grit production paper. Wipe, vacuum or blow off all sanding dust.
2. Seal all routed areas with one coat of a *Vinyl Sealer* reduced 50% with lacquer thinner. Allow the vinyl sealer to dry 30 minutes.
3. Sand entire surface with 280-320 grit no-fill sandpaper until smooth. Remove all sanding dust by vacuum, brush, wipe or tack cloth.
4. Prime entire surface with one coat of Lacquer Primer/Surfacer in desired color reduced to spray consistency in accordance the primer coat to dry at least 30 minutes.

5. Sand entire surface with 280-320 grit no-fill sandpaper until smooth. Remove all sanding dust by vacuum, brush, wipe or tack cloth.
6. Prime entire surface with at least two more coats of desired color primer as per instructions in #4.
7. Sand entire surface with 400 grit no-fill sandpaper until smooth. Remove all sanding dust by vacuum, brush, wipe or tack cloth.
8. Top coat with one to two coats of Pigmented Lacquer of desired color and sheen. Thin the lacquer top coats in accordance with label directions. Apply 4-5 mil wet film. Sand between coats with 400 no-fill sandpaper.
9. For greater durability, mar, water and chemical resistance, top coat with one to two coats of a clear pre-catalyzed or catalyzed lacquer, especially if rubbing out or polishing is necessary. This avoids rubbing through to the pigmented lacquer. Depending on the build required, step #8 can often be bypassed. Apply clear coat(s) 2-4 mill wet film.

GOOD QUALITY MDF BOARD (TIGHT PORE) AND HDF BOARD

1. Sand all flat surfaces with 280-320 grit production paper and all routed areas with 320-400 grit production paper. Wipe, vacuum or blow off all sanding dust.
2. Prime entire surface with one coat of Lacquer Primer/Surfacer in desired color reduced to spray consistency in accordance with label directions. Apply 4-5 mils wet film. Allow the primer coat to dry at least 30 minutes.
3. Sand entire surface with 400 grit no-fill sandpaper until smooth. Remove all sanding dust by vacuum, brush, wipe or tack cloth.
4. Prime entire surface with at least two more coats of desired color primer as per instructions in #2.
5. Sand entire surface with 400 grit no-fill sandpaper until smooth. Remove all sanding dust by vacuum, brush, wipe or tack cloth.
6. Top coat with one to two coats of Pigmented Lacquer of desired color and sheen. Thin the lacquer top coats in accordance with label directions. Apply 4-5 mil wet film. Sand between coats with 400 no-fill sandpaper.
7. For greater durability, mar, water and chemical resistance, top coat with one to two coats of a clear pre-catalyzed or catalyzed lacquer, such as Magna-Shield™ especially if rubbing out or polishing is necessary. This avoids rubbing through to the pigmented lacquer. Depending on the build required, step #8 can often be bypassed. Apply clear coat(s) 2-4 mill wet film.

WATER-BASED FINISHES

1. Sand all flat surfaces with 220 grit production paper and sand all routed areas with 280-320 grit production paper. Lightly mist coat edges with water, then sand. Vacuum, wipe or blow off all sanding dust. **DO NOT USE TACK CLOTH.**
2. **On lower grade MDF board**, apply two (2) *wash coats* of white shellac, 1-2 mils wet. The wash coats will act as a sealer and prevent water-based finishes from swelling the fibers. Sand between the wash coats with 220 no-fill sandpaper. A wash coat of shellac is a three (3) lb cut shellac thinned equally with denatured alcohol. Allow the final coat of wash coat shellac to dry 30 minutes to 2 hours.

NOTE: *If use of shellac is prohibitive, apply two (2) light coats (do not thin beyond label recommendation) of Clear Wood Sealer with no sanding between coats.*

On good quality MDF board (tight pore) and HDF board, proceed to step #4.

3. Sand the entire surface lightly with 220 no fill sandpaper. Vacuum, wipe or blow off all sanding dust.
4. Prime entire surface with two coats of No Bleed White Primer reduced to spray consistency per label directions. Apply 2-4 mils wet film. Allow the primer coat to dry at least 30 minutes (longer in hot and humid weather). **DO NOT SAND BETWEEN THE INITIAL COATS OF PRIMER.**
5. Sand entire surface with 220-320 grit no-fill sandpaper until smooth. Remove all sanding dust by vacuum, brush, wipe or blow off.
6. Prime entire surface with two additional coats of No Bleed White Primer as per instructions in #4.
7. Sand entire surface between the primer coats with 320-400 grit no-fill sandpaper until smooth. Sand the final coat of primer with 400 grit no-fill sandpaper.
8. Top coat with one to two coats of EQUAL® Pigmented Lacquer in desired color and sheen reduced per label directions. Apply 2-4 mils wet film. Sand between coats with 400 no-fill sandpaper.
9. For greater durability, mar, water and chemical resistance, top coat with one to two coats of Clear RESISTHANE™ Plus, Superlac, Resistovar or Polyshield in desired sheen. Depending on the build required, step #8 can often be bypassed.

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