



Guide to Sheet Goods

An inside look at what a high-end cabinet shop uses every day

BY SUZANNE WALTON
AND OWEN MADDEN

Where MDF excels. These large doors and drawers showcase MDF's strengths. It offers a flat, void-free, stable surface to hold the sequenced walnut veneers.



Rowan Woodwork is a small team of design-and-build nerds nestled in the former New York State capital of Kingston. Much of what we do is cabinetry, such as kitchens, bathrooms and vanities, wardrobes, offices, and libraries. We specialize in modern European cabinets, which have opened our scope to many different types of plywood and other sheet goods.

The choices on the market are endless and constantly evolving and changing. But the ones we present here are our current go-to sheet goods for cabinetry work. With these 11 products we can pull off any look—from Shaker-inspired to sleek, minimalist, and modern—and any finish, from painted to natural to oiled and waxed. Every project is different, and availability isn't always consistent; knowing each product's strengths and weaknesses allows us to have options and tailor the materials to the specific project, with the goal being a gorgeous end result that will stand the test of time and use.

Suzanne Walton is the owner of Rowan Woodwork in Kingston, N.Y., where Owen Madden is lead builder.

MDF: FLAT, SMOOTH, AND STABLE



Because it's an engineered material, MDF doesn't have grain patterns, which gives it a smooth finish ideal for paint or veneer, and a consistent, stable thickness. An MDF core panel with a pre-applied veneer is the absolute best product for cabinet doors and drawers. Completely void-free, it makes for a very flat surface, and the fibrous core won't move while it's being cut or after installation.

NAMES

MDF, MDF Core (veneered)

USES

Best for cabinet doors/drawers. Painted surfaces. Non-structural veneered surfaces.

PRICE*

MDF \$65 for a ¾-in. by 4-ft. by 8-ft. sheet

MDF Core (veneered)
\$100-\$150 (depending on species of veneer) for a ¾-in. by 4-ft. by 8-ft. sheet

AVAILABILITY

Most specialty plywood dealers and some home centers.

SIZES

Sheets come in widths of 4 ft. and 5 ft. with lengths up to 10 ft., and thickness ranging from ¼ in. to 1 in.

COLORS

Available in a variety of veneers.

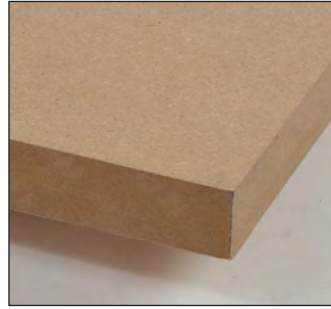
PROS:

Flat and very stable, easily veneered with any material, low cost.

CONS:

Less structural than veneer core, susceptible to moisture. Formaldehyde-based products are known to be harmful. Heavy.

MEDEX: A BETTER MDF



Think of Medex as MDF's hippie younger brother. This product has all the great qualities of basic MDF and a few more. Made with recycled wood and no added formaldehyde resin, it is very environmentally friendly. With a list a mile long of its environmental achievements, it also manages to be more water-resistant than other fiberboards.

NAMES

Medex, Medex MDF, SDF (sustainable design fiberboard)

USES

Best for painted cabinet faces, trim, or panels. It can be veneered with any material and makes a great, stable substrate.

PRICE*

\$90 for a ¾-in. by 4-ft. by 8-ft. sheet

AVAILABILITY

Widely available at specialty plywood dealers.

SIZES

Sheets come 4 ft. and 5 ft. wide, with lengths up to 18 ft. and thickness ranging from ¼ in. to 1¼ in.

COLORS

Natural (brown), black, and gray

PROS

Consistent thickness, not much movement based on moisture, paints very well, no core so no need to edge-band if painting.

CONS

Less structural than veneer core, easily damaged, creates lots of very fine dust.

*Pricing on sheet goods can vary widely by distributor and can change daily.



Out-of-the-box MDF use. The client specifically wanted an MDF core with a linear rift white oak veneer for an ultra-modern look. Typically, Rowan's designers prefer not to make the structural portions of millwork out of MDF, but the design incorporated lots of vertical support and small spans, so the MDF worked fine. It provided a flat, stable surface and gave the client the look they wanted.



Perfect for paint. In this Shaker-style kitchen, Rowan used solid poplar for the rails and stiles and Medex for the panels. It is not only a more environmentally friendly material than MDF, but it also finishes better.

VENEER CORE PLYWOOD



Veneer-core plywood is an extremely useful material because it is easily available, very sturdy, structural, and extremely stable if made well. When clients want wood faces for casework, opt for the strength and screw-holding power of plywood for the boxes. You also can use 1-in. veneer core for shelves as it is stronger than MDF, which tends to sag.

NAMES

Veneer core (unfinished),
Veneer core plywood C2 MPBY
(Columbia forest products)

USES

Unfinished veneer core plywood excels in situations where structural integrity is necessary and aesthetics such as wood species and finish need to be tailored to the job.

PRICE*

\$80 for a ¾-in. by 4-ft. by 8-ft. sheet

AVAILABILITY

Most specialty plywood dealers and some home centers.

SIZES

Sheets come in 4 ft. widths and lengths up to 10 ft., with thickness from ½ in. to 1 in.

COLORS

Various options based on veneer, distributor, and manufacturer. Columbia Forest Products offers a large selection of hardwood face veneers, such as maple, alder, hickory, cherry, walnut, oak, and sapele to name a few.

PROS

Structural, choice of wood species for veneer, apply finish of choice, inexpensive.

CONS

Voids and telegraphing of imperfections in core, visible core requires edge-banding or a face frame.

PREFINISHED PLYWOOD



Prefinished maple plywood is the ultimate cabinetmaker's workhorse. With a tough satin finish already applied, it makes for quick construction of the basic casework. We use a Maple C2 grade traditional veneer core; it is a mid-grade face, but to alter our favorite Bob Van Dyke quote, "the plates won't mind," the clothes inside won't either. Some manufacturers, like Columbia

Forest, with PureBond, use a soy-based and non-formaldehyde formula glue and finish in their plywood. This makes their prefinished plywood environmentally friendly, which is always a plus.

NAME

Prefinished plywood

USES:

Best for cabinet interiors. It's available with finish on one face or both, so it can work for sides, backs, and shelving.

PRICE*

\$95 for a ¾-in. by 4-ft. by 8-ft. sheet

AVAILABILITY

Most specialty plywood dealers and some home centers.

SIZES

Sheets come in widths of 4 ft. and lengths up to 10 ft. with thickness ranging from ½ in. to 1 in.

COLORS

Options for color are based on veneer: Maple, walnut, oak, cherry, and sapele.

PROS

Not having to finish cabinet interiors is always a huge pro! Structural, inexpensive.

CONS

Only one finish is available. Voids and telegraphing of imperfections in the core.

Sequenced and matched. Rowan applied this walnut veneer to veneer-core plywood. They specifically used veneer core for its ability to hold a screw. In a kitchen where the fridge has an integrated panel and mounting brackets, veneer core's superior screw holding makes it a much better choice than MDF for the panel.



Perfect for cabinet interiors. Rowan uses pre-finished maple for most of their cabinet interiors. The tough, pre-applied satin finish works perfectly for anything you want to throw inside it. Additionally, the maple has warm neutral tones that won't distract from whatever material you use for the cabinet faces.



BALTIC BIRCH



The gold standard of multi-ply plywood, and the most widely available product, Baltic birch is more dense and rigid than classic cores or any other basic hardwood plywood. Its uses range from sturdy cabinets to shop jigs to fine furniture. Baltic birch is plywood made of an odd number of layers of birch hardwood (usually imported from the Baltic Sea region) crossbanded and sanded

flat, making for a dense, void-free core with more layers than a typical sheet. There are different options in glue, allowing uses that range from indoor cabinetry to outdoor and light marine uses.

NAMES

Baltic birch, Russian birch

USES

Painted cabinet faces, trim, or panels. It can be veneered with any material and makes a great stable substrate.

PRICE*

\$130 for a ¾-in. by 4-ft. by 8-ft. sheet

AVAILABILITY

Lumberyard or home center, also online from websites like Rockler, Woodcraft, and even Amazon.

SIZES

Sheets come in widths of 4 ft., 5 ft. or 8 ft., lengths up to 8 ft., and thickness ranging from ¼ in. to 1 in.

COLORS

No options for color. Birch veneer top sheets.

PROS

More sturdy than classic veneer core plywood, indoor and outdoor use, lots of size and thickness options, clear hardwood face typical of B1 grade. Excellent screw holding power. Edges can be exposed without edge-banding for a modern/industrial/European look.

CONS

More expensive than veneer core, fewer options for face grain.

APPLEPLY



When you're after that exposed edge look, ApplePly is another great option. Like its European multi-ply competition, it has a lot more ply layers than typical plywood (both have 13 plies per ¾ in.), making for a very good aesthetic. Appleply is manufactured in the United States using a mix of aspen and maple trees, setting it apart from the birch and poplar hardwood cores used in Baltic birch and Russian birch.

ApplePly is available with a variety of hardwood face veneers and measures up to the best quality European competitors.

NAME

ApplePly

USES

Sturdy cabinetry, exposed edge furniture and cabinetry, outdoor or high moisture exposed millwork.

PRICE*

\$180 for a ¾-in. by 4-ft. by 8-ft. sheet

AVAILABILITY

Some specialty plywood dealers and online at buyappleply.com

SIZES

Sheets come in widths of 4 ft., lengths up to 8 ft., with thickness ranging from ¼ in. to 1½ in.

COLORS

Based on veneer options; maple, walnut, oak, cherry, birch, and teak.

PROS

Able to finish the edge without edge banding, more sturdy than classic veneer-core plywood, indoor and outdoor use, lots of size and thickness options, made in America. It has almost no voids, is very flat, strong, and consistent in thickness. Excellent screw holding power.

CONS

Expensive, limited veneer options.

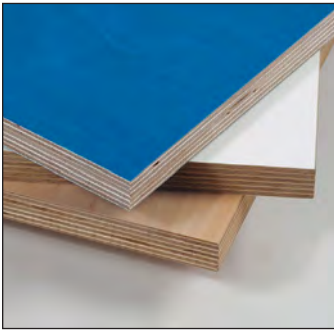


The go-to utility ply. Used here as drawer dividers inside a solid-wood drawer box, Baltic birch gives a higher-end look to something that can tend to be mundane.



As American as ApplePly. This domestic multi-ply is a fantastic alternative to Baltic birch or other European birch plywood. Here it's used specifically for its unique exposed edge, but also leaning on its stronger core to bear the weight in this modern desk and shelving.

MULTI-PLY WITH A TOUGH FINISH



The top-of-the-line multi-ply with the widest array of uses, this material is super stable and very durable. It is a Swiss army knife (or perhaps a Finnish army knife) in a world of plastic utensils. FinPly is very similar to Baltic-birch plywood but with a phenolic resin coating, which makes this a durable prefinished alternative to original Baltic birch. One of the most versatile materials on the

market, its uses range from concrete forms to high-end cabinetry and millwork.

NAMES

Fin Ply, Phenolic plywood, Colorfin Ply, Euro Color Ply

USES

Exposed edge furniture and millwork, exterior paneling, shop tabletops, and jigs.

PRICE*

\$290 for a 3/4-in. by 4-ft. by 8-ft. sheet.

AVAILABILITY

Some specialty plywood dealers such as Roberts Plywood. Woodcraft and Amazon in smaller sizes.

SIZES

Sheets up to 4 ft. by 8 ft. with thickness ranging from 1/2 in. to 3/4 in.

COLORS

White, yellow, orange, red, green, blue, gray, black, and natural clear.

PROS

Stability, durability, void-free core for exposed edge furniture or cabinetry, beautiful colors and finish, resistant to moisture.

CONS

Very expensive, difficult to find, touching up the phenolic finish is near impossible. The phenolic coating can chip while cutting.

PLYWOOD MEETS FIBERBOARD



Garnica or Pluma Ply is a hybrid sheet good with an ultralight poplar ply core and HDF (high density fiberboard) face material on top that can be veneered, laminated, or painted. It has become one of the most coveted products on the shelf in our shop. We use it for anything from simple shop jigs and fixtures to the structural panels holding

together our most intricate cabinetry. It is a lightweight, void-free alternative to regular ply, and a more structural choice than MDF.

NAMES

Garnica, Pluma Ply

USES

Best for painted cabinet casework, lightweight structural panels, shop fixtures.

PRICE*

\$110 for a 3/4-in. by 4-ft. by 8-ft. sheet

AVAILABILITY

Most specialty plywood dealers

SIZES

Sheets come in widths of 4 ft. and 5 ft., lengths up to 10 ft., with thickness ranging from 1/2 in. to 2 in.

COLORS

Brown is the only option.

PROS

Easy to paint, holds a screw better than classic MDF/HDF, void and knot-free, little movement. Lightweight.

CONS

A bit more expensive, visible core needs edge-banding or face frame.

European modern design. Rowan used FinPly, a phenolic resin-coated birch veneer multi-ply, for all the casework in this bar and shelving unit, creating a sanded, chamfered, oiled, and waxed edge to achieve the aesthetic that the clients requested.



Your framing friend. Garnica is an ideal material for framing. It is flat, strong, light, and easier to rip into dimensional parts than wonky 2x material. Rowan frequently uses it in places such as inside a kitchen island, creating a chase for the electrical and plumbing. Or here, as the infrastructure holding a built-in bed together.

ECO-FRIENDLY BAMBOO



For the environmentally minded, bamboo has been a shining star in the sustainable building industry. Plyboo has a selection of stunning and eco-friendly sheet products with different cores and layups to match any project you have in mind. Plyboo is made of either three or four layers of fast-growing bamboo. Instead of a roll cut of veneer between the layers, these strips are glued up more

like a classic solid-wood lamination, making the sheets very stable, architecturally rated, and 100% rapidly renewable. As a sheet good, the classic look of the ancient material takes on a modern aesthetic.

NAMES

Plyboo, Plyboo plywood (Smith and Fong)

USES

Indoor cabinetry faces, interiors, or wall paneling.

PRICE *

\$220 for a 3/4-in. by 4-ft. by 8-ft. sheet

AVAILABILITY

Some specialty plywood dealers such as Eco Supply

SIZES

Sheets come in 4 ft. by 8 ft. with thickness ranging from 1/4 in. to 1 in.

COLORS

Natural and amber.

PROS

100% rapidly renewable, stable core.

CONS

Expensive, extremely hard (dulls blades and bits), chips easily when cut.

HONEYCOMB CORE FOR LIGHT WEIGHT



Think of these products as a futuristic model for what plywoods might become. The core of this sci-fi sheet good is made of materials including fiber, cardboard, foam, and PC2 polycarbonate plastic. This substrate will keep any panel rigid, flat, and super-light. The product's core, in a grid resembling a bees' honeycomb, is sandwiched between thin skins of HDF or MDF; the combination creates a strong,

lightweight torsion box that won't twist or bow.

NAMES

Plascore PC2 Polycarbonate Honeycomb Comb Light

USES

Best as a thick, light substrate, such as in a thick wall panel detail or oversized door.

PRICE *

\$90 for a 1/2-in. by 4-ft. by 8-ft. sheet

AVAILABILITY

Plascore.com, Thinklightweight.com

SIZES

Sheets up to 60 in. by 150 in. with thickness ranging from 1/8 in. to 2 in.

COLORS

Black, white, or clear depending on dealer.

PROS

Stable, very light, avoids twisting, unaffected by moisture.

CONS

Hard to find, not very versatile.

Sleek and sustainable.

Plyboo is a fantastic product that is a green alternative to regular ply veneer. It is sustainably made and can do any job other materials can do but with less of a carbon footprint, which can be very important to some clients.



Fun use of

Plascore. *For these 30-in. by 8-ft. doors, the designers used a poplar frame with a polypropylene honeycomb core and an MDF veneer. The result is an ultra-light and stable door that moves easily, finishes well, and stays dead flat over the years.*