



DIEBOARDS & PLYWOOD

In addition to supplying the highest quality pattern grade lumbers for over 100 years, Freeman offers flat and rotary dieboards, a variety of high-grade, economical plywoods, and specialty sheet materials that are used in a wide range of applications.

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Flat Dieboards

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Rotary Dieboards

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Plywood

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Other Sheet Materials

FLAT DIEBOARDS

Freeman offers a variety of flat dieboards such as Birch, Ash, Maple, MDF and other specialty boards. Please visit our website, www.FreemanSupply.com, for full details, dimensions, and part numbers.

Premium Birch Dieboard



- ▶ Thicknesses: from 1/4" to 1"
- ▶ Widths: from 11 3/4" to 72"
- ▶ Lengths: from 42" to 96"
- ▶ Available in Regular & Long Grain

This Birch is imported from the finest mills to offer a true dieboard grade of laser-quality birch. From cutting dies to stripping and blanking tools, this board is ready for a variety of applications at a great value.

UV Coated Birch Dieboard



- ▶ Thicknesses: from 5/16" to 1"
- ▶ Widths: from 30" to 60"
- ▶ Lengths: from 48" to 96"
- ▶ Available in Regular & Long Grain

Freeman's lab-tested UV Stabilized Birch provides a very flat and stable cutting die. The completely sealed smooth hard surface is great for strippers and blankers as well.



White Seal Birch Dieboard



- ▶ Thicknesses: from 5/8" to 1/2"
- ▶ Width: 48"
- ▶ Lengths: 60" or 72"

This stabilized board offers diemakers a unique look and 5 coats of finish for the ultimate in stability. The surface not only completely seals the board, but enhances the dimensional marks and etching from the laser when knifing.

Ultraflat Maple™ Dieboard



- ▶ Thicknesses: from 1/4" to 1"
- ▶ Widths: from 27" to 48"
- ▶ Lengths: from 39" to 72"
- ▶ Available with No Coating or UV Coating

The industry's flattest Maple Dieboard is guaranteed flat to IADD specifications and certified stamped flat. This board was developed in response to diemakers' and converters' requests for a flatter maple dieboard.



Our CITO Steel Rule (page 109) can be applied to a die board with a rawhide mallet. (page 110)

FLAT DIEBOARDS CONTINUED

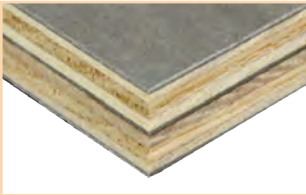
Ash Dieboard



- ▶ Thickness: 5/8"
- ▶ Widths: from 27" to 36"
- ▶ Lengths: from 39" to 48"

This Hard White Ash Dieboard features the ultimate in strength and value. This dieboard now offers diemakers and converters a tougher, flatter, American made alternative to traditional maple and imported birch.

3G Composite Diebase



- ▶ Thickness: 5/8"
- ▶ Width: 48"
- ▶ Lengths: 60" or 72"

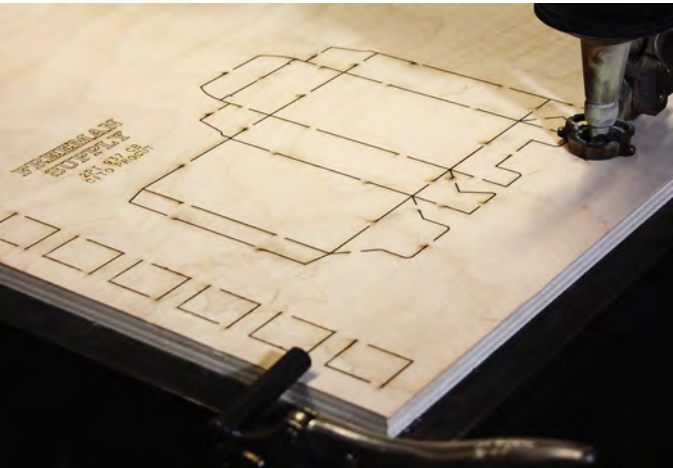
This board consists of three gray laminates alternating with Ash and Maple Veneers. It was developed to offer diemakers an exceptionally strong, dimensionally stable diebase for use in high-end tooling. The three levels of laminate allow this board to laser-cut much better than comparable wood/composite dieboards.

MDF Dieboard



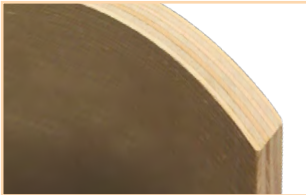
- ▶ Thicknesses: 8 mm, 5/8", or 3/4"
- ▶ Widths: from 30" to 49"
- ▶ Lengths: from 48" to 97"
- ▶ Available in Maple

Our most economical dieboard for short-run throw away tooling, this MDF material laser-cuts well and lays flat.



ROTARY DIEBOARDS

RynoPly™ Rotary Dieboard



- ▶ Thicknesses: 1/2" or 5/8"
- ▶ Widths: from 7" to 27 1/4"
- ▶ Lengths: from 41" to 120"

RynoPly Ash Rotary was developed to offer diemakers and converters a tougher rotary dieboard. Constructed with 7 plies of Northern-grown Hard White Ash veneer, it is built to handle even the most demanding rotary applications. The superior shock resistance qualities of Ash compared to other hardwoods make this a long-lasting dieboard.

SEE ALSO

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PATTERN PLYWOOD



Freeman Pattern Plywoods are manufactured from 1½" to 2" in thickness for use in making large core box bottom boards and sides, large cope & drag plates, or general heavy duty applications. Available in solid pine or maple-faced pine, these plywoods feature "almost void free" construction throughout.



Our Pattern Plywood is stocked in multiple warehouse locations across the country.

Freeman Maple-Faced Pattern Plywood

Smooth maple facing on both faces with a solid pine interior combines quality with economy in a thick plywood panel.

SKU	Nominal Thickness	Width	Length	Grade	No. Plys
075373	1½"	48"	96"	D3	11
075374	1¼"	48"	96"	D3	11
075375	1½"	48"	96"	D3	13
075376	1¾"	48"	96"	D3	15



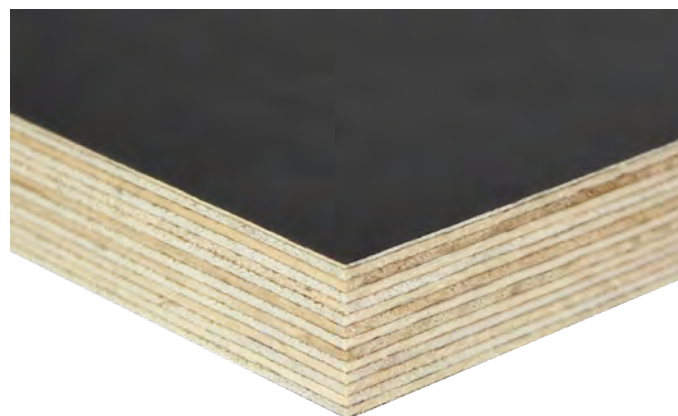
Freeman Pine Pattern Plywood

Solid Pine construction combines a smooth surface with durability for a thick plywood panel.

SKU	Nominal Thickness	Width	Length	Grade	No. Plys
075364	1¼"	48"	96"	AB	9
075365	1½"	48"	96"	AB	11
075366	1¾"	48"	96"	AB	13
075367	2"	48"	96"	AB	13



SPECIALTY PLYWOOD



Euroform Plywood

Euroform is made with the same high quality construction as Eurobirch with the addition of thermally fused phenolic facings for durability and moisture resistance. It is excellent for pattern plates or core box construction.

SKU	Nominal Thickness	Width	Length	No. Plys
075392	¾"	48"	96"	14
075393	1"	48"	96"	18

Eurobirch Plywood

Eurobirch is the highest quality plywood in our line. It is suitable for pattern plates, core box construction, or any heavy duty application. All sizes are equivalent to A-B grade.

SKU	Nominal Thickness	Width	Length	No. Plys
075382	19MM	48"	96"	14
075383	25MM	48"	96"	18

Russian Birch Plywood

Russian Birch plywood is constructed with thin veneers of solid Birch and is assembled using phenolic adhesive which provides a waterproof bond line. This material is an economical alternative to Eurobirch.

SKU	Nominal Thickness	Width	Length	No. Plys
075389	18 mm	48"	96"	17
075385	30 mm	48"	48"	21

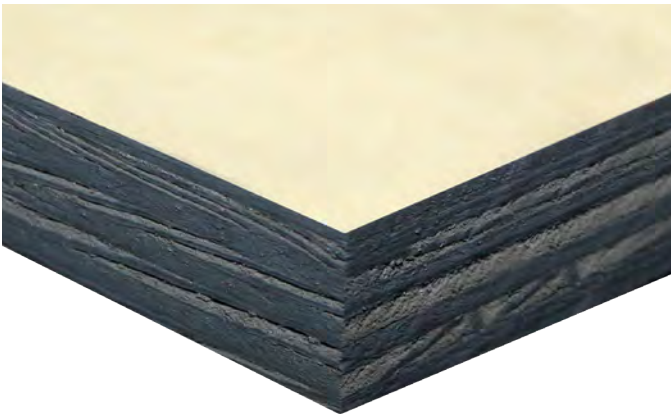
STANDARD PLYWOOD



MDO (Medium Density Overlay) Fir Plywood

MDO Plywood is produced with a resin-treated fiber overlay on both sides that is generally smooth and opaque. This allows for rapid, even paint and coating applications. MDO Plywood is manufactured with 100% waterproof adhesives and has an inner ply construction of C grade veneers and B grade or better face and back veneers.

SKU	Nominal Thickness	Width	Length	Grade	No. Plys	Pc/unit*
075341	¾"	48"	96"	AB	7	30
075342	1"	48"	96"	AB	9	32
075347	1½"	48"	96"	AB	9	26



HDO (High Density Overlay) Fir Plywood

HDO Plywood is manufactured with a thermosetting resin-impregnated fiber surface bonded to both outer plys under heat and pressure. It provides a smooth, uniform surface which is resistant to abrasion, moisture penetration and deterioration from many common chemicals and solvents. HDO Plywood is bonded with 100% waterproof glue with face veneers grade B or better with a semi-opaque thermosetting resin-impregnated surface.

SKU	Nominal Thickness	Width	Length	Grade	No. Plys	Pc/unit*
075343	¾"	48"	96"	AB	7	44
075344	1"	48"	96"	AB	9	30



Fir Plywood

Suitable for general construction requirements, this plywood is manufactured of solid fir laminations.

SKU	Nominal Thickness	Width	Length	Grade	No. Plys	Pc/unit*
075331	¾"	48"	96"	AC	7	44
075332	1"	48"	96"	AC	7	33

Pine Plywood

This general-purpose construction-grade plywood is constructed of pine laminations glued with exterior adhesive. This product will have larger internal voids and surface defects.

SKU	Nominal Thickness	Width	Length	Grade	No. Plys	Pc/unit*
075351	¾"	48"	96"	CDX	5	48

Birch-Faced Plywood

Freeman offers an extensive selection of smooth surface birch-faced plywoods for a variety of woodworking applications. Thicknesses are available from ½" to 1" and all contain a veneer core.

SKU	Nominal Thickness	Width	Length	Grade	No. Plys	Pc/unit*
075326	¾"	48"	96"	A2	7	40
075324	½"	48"	96"	C3	5	66
075333	⅝"	48"	96"	C3	7	60
075321	¾"	48"	96"	C3	7	50
075322	1"	48"	96"	C3	9	35
075325	¾"	48"	96"	D3 (shop)	7	50
075372	1"	48"	96"	D3 (shop)	9	35
075386	25 mm	60"	60"	BB/CP	26	16

* Pc./unit listed for shipping reference only. Sheets are sold individually.

PLYWOOD GRADING



Splits and Wood Repairs



Knots or Burls



Mineral Streaks



Wood Patches

Hardwood

Hardwood plywood uses two characters to designate the panel grade. The face is normally graded using a letter and the back is normally graded using a number.

Face Grades

A. Smooth and free of large knots. Small pin knots, burls, or slight mineral streaks permitted. Best grade for a plywood face.

B. Similar to "A" face with sound knots or repaired knots permitted. Slightly rougher grain and mineral streaks typical.

C. Sound, repaired, or pin knots and small burls permitted. Mineral streaks readily evident.

D. Similar to "C" grade but more repaired knots, sound knots, and rough cut veneer permitted.

Back Grades

1. Sound, tight knots up to $\frac{3}{8}$ " in diameter. Rough grain and small splits permitted.

2. Sound, tight knots up to $\frac{3}{4}$ " in diameter. Repaired knots, rough cut veneer, and mineral streaks common.

3. $\frac{1}{2}$ " to $1\frac{1}{2}$ " diameter knots allowed on the face. Repaired knots, unlimited small defects, and streaks permitted.

Softwood

Softwood plywood uses two letter characters to designate the grade of the panel. The face and back are both normally graded using a letter.

A. This veneer is smooth and free of pitch pockets, knots, and open splits. Repaired splits or wood patches may be permitted.

B. This grade is smooth and free from open defects, but sound knots up to 1" in diameter are evident. Wood repairs or repaired knots or splits are common in the veneer.

C. Unlimited tight knots up to $1\frac{1}{2}$ " in diameter are characteristic to the grade. Open knots, splits, wood patches, and repairs are permitted.

D. This grade has no limit to the number of defects or repairs. Knotholes are permissible to $2\frac{1}{2}$ " in diameter and open splits are common.

GENERAL SHEET MATERIALS

Aluminum Sheet

This sheet is ideal for layouts, templates and build-ups. Sold by the sheet and shipped flat in 24" x 72" sheets.

SKU	Thickness	Width	Length
027540	0.032"	72"	24"
027545	0.050"	72"	24"
027550	0.063"	72"	24"
027555	0.090"	72"	24"
027560	0.125"	72"	24"
027565	0.190"	72"	24"
027570	0.250"	72"	24"

Masonite Sheets

Fully tempered Masonite Sheets are hard, smooth, and most commonly used for pattern layout.

SKU	Nominal Thickness	Width	Length
075309	$\frac{1}{8}$ "	48"	96"
075319	$\frac{1}{4}$ "	48"	96"

Acetate Sheet

This clear economy cellulose acetate sheet can be used for template and layout work. Packaged flat in 20" x 50" sheets.

SKU	Thickness	Width	Length
027520	.020"	20"	50"
027525	.030"	20"	50"
027530	.040"	20"	50"
027535	.060"	20"	50"

Armorboard

Armorboard is an exterior plywood panel with $\frac{3}{8}$ " standard hardboard on both faces.

SKU	Nominal Thickness	Width	Length
075370	$\frac{3}{4}$ "	48"	96"

Particle Board

Ideally suited for mold-box and master pattern bottom board construction, this is a smooth-finish particle board.

SKU	Nominal Thickness	Width	Length
075304	$\frac{1}{2}$ "	48"	96"
075101	$\frac{3}{4}$ "	48"	96"

Melaboard

Melaboard is a white particle board panel with 130 gram melamine film thermally fused to both faces.

SKU	Nominal Thickness	Width	Length
075350	$\frac{3}{4}$ "	49"	97"