Specifying the Product

1. How many sheets does your job require?

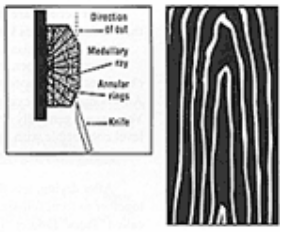
Quantity is important because individual flitches are limited in the number of sheets that they can yield.

2. What Over-all Thickness of Panel does the job require?

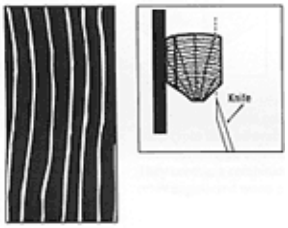
3.0mm, 5.2mm, ¼”, ½”, 5/8”, 11/16”, ¾”, 1”, 1-1/8”, 1-1/4”, 1-½”

3. Which cut of Veneer compliments your application?

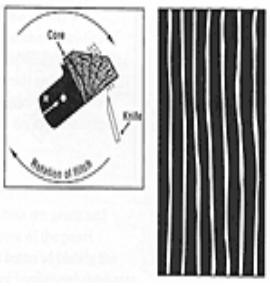
The way in which a log is cut in relation to the annual rings determines the appearance of the veneer..



a) Flat cut or plain slicing yields a beautiful cathedral effect. The veneer leaves are wider than in quartered or rift slicing. The half log, or flitch, is mounted with the heart side flat against the flitch table of the slicer and the slicing is done parallel to a line through the center of the log.



b) Quarter slicing yields a finer figure with a very straight grain. Characteristic flake or ray may appear in red or white oak. The flake size and quantity will vary, even within a single flitch. The quarter log is mounted on the flitch table so that the growth rings of the log strike the knife at approximately right angles, producing a series of stripes. These stripes vary in width from species to species.



c) Rift slicing is used only when referring to Red and White Oak as rift cutting can eliminate a flake or ray figure that is often found in this species. The cut slices slightly across the medullary rays.

d) Rotary slicing yields wild grain patterns and wide flitches. In some species rotary cuts are available as a whole piece face without any splice lines. This cut follows the log's annual growth rings, providing a generally bold random appearance. Matching of grain or figure from panel to panel is unlikely. The log is mounted centrally in the lathe and turned against a razor sharp blade, like unwinding a roll of paper.

4. What species best suites your application?

Commercial Hardwood Specie	Plain Sliced (Flat-Cut)	Quarter Cut	Rift-Cut	Rotary Cut
Ash	Yes	Yes	---	Yes
Birch	Yes	---	---	Yes
Cherry	Yes	Yes	---	Yes
Hickory	Yes	---	---	Yes
Lauan	---	Yes	---	Yes
Mahogany (African)	Yes	Yes	---	Yes
Mahogany (Honduras)	Yes	Yes	---	Yes
Maple	Yes	Yes	---	Yes
Meranti	---	Yes	---	Yes
Oak (Red)	Yes	Yes	Yes	Yes
Oak (White)	Yes	Yes	Yes	Yes
Pecan	Yes	---	---	Yes
Walnut (Black)	Yes	Yes	---	Yes
Yellow Poplar	Yes	---	---	Yes

5. What Grade best suites your application and budget?

Hardwood plywood's work with an Alpha numeric system of grading.

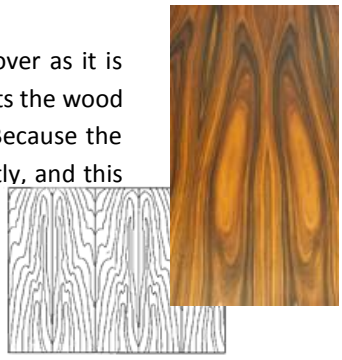
Face Grades	AA, A, B,C,D, and E
Specialty Grade	SP
Back Grades	1, 2, 3, and 4
Inner Ply Grades	J, K, L, and M

You may choose the same species that is on the face (A/A), a lower grade of the species that is on the face (A/1 or A/2), a wood backer of any species (A/3), or a balancing backer that is not made of wood (A/4).

6. How would you like for the leaves to be joined on the sheet?

After the log is sliced the stack of veneer leaves needs to be placed side by side in order to create the veneer faces. The way the veneers are placed next to each other affects the overall look of the sheet.

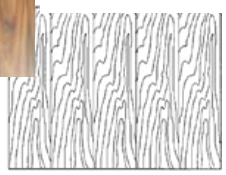
A.



Book Matching is the most commonly used match in the industry. Every other leaf is turned over as it is placed next to its mate. That is, every pair of leaves is opened like a book. The knife blade as it hits the wood creates a "loose" side where the cells have been opened up by the blade, and a "tight" side. Because the "tight" and "loose" faces alternate in adjacent pieces of veneer, they may accept stain differently, and this may result in a noticeable color variation called barber poling. This can be minimized, although eliminated, with good finishing techniques.

B.

Slip Matching is often used in quarter cut and rift cut veneer to minimize the barber pole effect. Instead of turning every other leaf, the leaves are merely slipped off the stack, one after another. They are laid side by side just like dealing a deck of cards all face up. The grain figure repeats, but joints won't show mirrored effect.

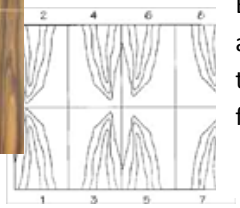


C.

In reverse slip matching the veneer leaves are slipped out from under each other and every other veneer leaf is flipped end to end. This balances the character of the veneer in the panel face.

D.

End Matching is often used when the area to be paneled is very tall or when the apparent length of short veneer needs to be extended. This is achieved by booking the veneer leaves end to end and then side by side. A sketch or drawing is required for quoting, as there are several different ways to achieve this result.

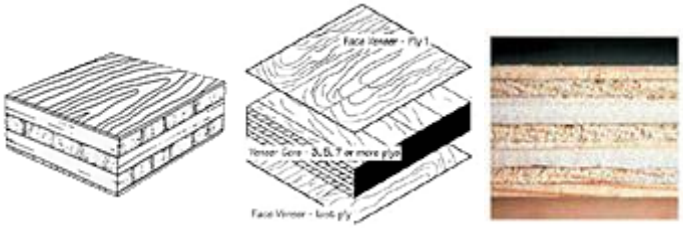


7. What panel core does the job require?

If your job requires anything other than standard cores listed below, please specify such requirements as FR (fire-retardant), MR (moisture resistant), NAF or NAUF (formaldehyde free) core.

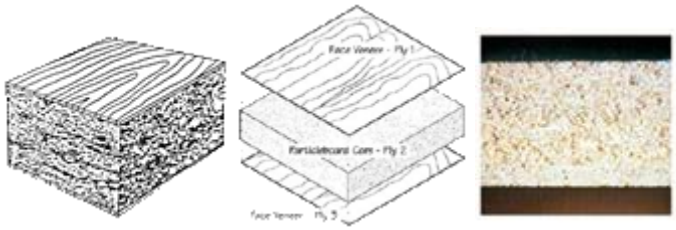
a. Panel Core:

i. Veneer Core Plywood (VC)



is defined as plywood which all the plies are made of veneer . The directions of the grain in adjacent plies are normally at right angles, with the outer and inner plies placed symmetrically on each side of a middle ply or core. Adhesive is applied to the veneer and pressed together.

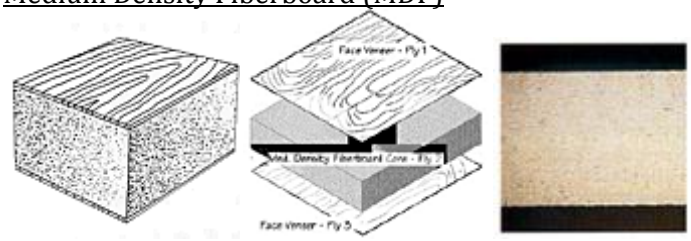
ii. Particleboard Core (PBC)



is defined as a wood panel made from recycled wood particles which are not softened and refined. The wood particles are milled to sizes appropriate for the face or core of the panels before introducing the resin and forming into mats.

Particleboard Panels are manufactured with care ensuring consistently smooth surfaces whether the product is intended for raw board sales or for value added lamination. High-precision sanding equipment produces smooth surfaces at all times, making the panels a versatile and reliable substrate for paint and laminates.

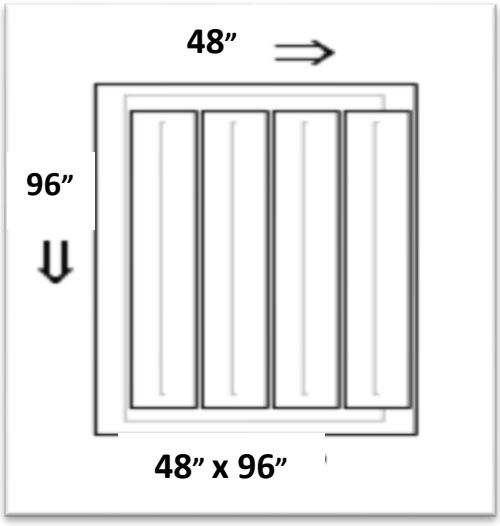
iii. Medium Density Fiberboard (MDF)

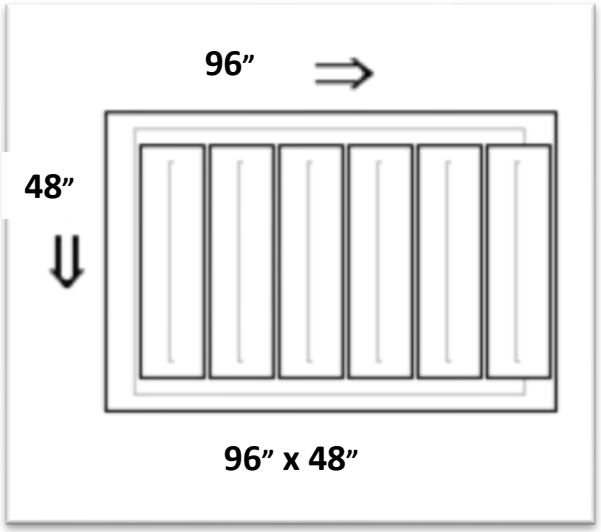


is defined a product that is much in the same manner as particleboard using the latest in manufacturing technology and consists of recycled wood particles that are softened in steam vats called digesters. The softened particles are refined to individual fibers, dried, mixed with resin, and formed into mats. The mats enter a heated press and are cured, becoming panels. Panels are then typically sanded, graded and cut to the appropriate size.

8. What size of sheets do you require?

Width is the measurement across the grain, while length is the measurement with the grain. The first number is always the width and the second is the length.





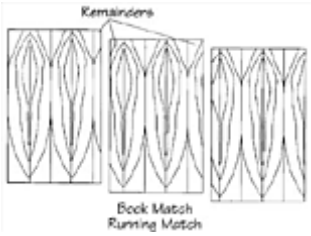
The example below exemplifies the information extracted from points 1 – 8 of Specifying the Product. It is the end result which will expedite your quote/order in a timely fashion.

40 sheets, ¾’, Rift Cut, Red Oak, A-1, Slip Matched, PC, 48” x 96”

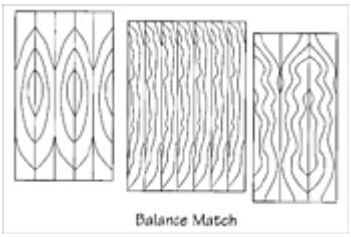
Additional information required when selling Exotic's

9. How would you like the single face panel to be fabricated?

a. Running Match is the most common method for commodity sheets. Each leaf is clipped to its widest point, this results in each panel having a different number of leaves. The most visible result seen is narrow leaves on the edges of the panels. The word running may be mistakenly understood as meaning a running "sequence" of material; however, this term is not related to panel matching.

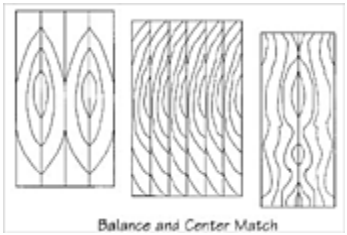


b. Balance matched faces have leaves of approximately the same width all across the face. The two outside leaves will be slightly narrower due to trimming. Due to yield loss in cutting to keep the leaf width the same, this type of matching is more expensive than running match.



c. Center Balance Match is similar to balance match in that the leaves are still about the same width across the face, with the outside leaves just a little smaller due to final trimming. The difference is that there will always be an even number of leaves on the face. Each panel will have a center line, with an equal number of leaves to the left and right. Remember that the actual number of leaves on a face will change, just as in balance match, as we move through the flitch. Due to yield loss in cutting to keep the leaf width the same and an even number of components, this type of matching is more expensive than balanced match.

10. How do you want the panels to be



fabricated in relation to each other?

a. Flitch matching refers to a set of veneer sheets that have been produced from the same log. In some cases this results in a similarity in color. This option is often more affordable than sequence matching. If color and grain consistency are necessary, please request sequence matching.

b. Sequencing refers to a set of veneer sheets that have been produced in order from the same log. The number of sheets per sequence can be limited by species, cut, grain-orientation and yield.

c. Blue-print Matched panels are laid up from a working shop drawing. The drawing shows each panel, its size and grain orientation, and its relationship to every other panel on the project. FormWood must have a drawing in order to quote such a specific type of job.

11. Do you have any special requirements?

This may include sanding specifications, matching to an existing job, density of figure, and others. It is best that we know all of the parameters of the job at the time of quoting because changes can affect the price, lead time, and availability of material.

The example below exemplifies the information extracted from points 1 – 11 of Specifying the Product. It is the end result which will expedite your quote/order in a timely fashion.

40 sheets, ¾’, Rift Cut, Red Oak, A-1, Slip Matched, PC, 48” x 96”, Balanced Matched, Sequenced Matched, 220 Grit Sanding