

PLYWOOD CORES

A variety of cores are available for industrial panels. See page 33 for our inventory of industrial panel cores.

Medium-Density Fiberboard (MDF) Core

To form fiberboard, wood particles are reduced to fibers in a moderate pressure steam vessel, combined with a resin, and bonded together under heat and pressure. Medium-density fiberboard (MDF) is one of the most rapidly growing composite board products. The surface is flat, smooth, uniform, dense, and free of knots or grain patterns. It makes a superb carrier for veneers and can be enhanced to a fire-retardant, moisture-resistant or bendable core. (See below.)

Particleboard Core

Particleboard is produced from wood particles of various sizes that are bonded together with a synthetic resin or binder under heat and pressure. This product is commercially classified by “density,” which is measured by the weight per cubic foot of the panel product. Medium density industrial particleboard is used in the broadest applications of architectural woodwork. It is especially well suited as a core (substrate) for high-quality veneers and decorative laminates. It can be enhanced to a fire-retardant, moisture-resistant or bendable core. (See below.)

Veneer Core

To form veneer core, three or more layers (plies) of wood veneers are pressed and glued into a single sheet. Layers of veneer are pressed together in alternating perpendicular layers balanced on either side of a central core layer. This type of plywood is more prone to surface irregularities and defects, but exhibits greater strength in bending and in stress than other core types. High-quality, calibrated veneer core - with as many as 13 plies – is recommended for architectural veneer panels. This virtually eliminates surface irregularities and defects. Grading for veneer cores is shown in the chart that follows.

Veneer Core Grade	Description
J	Knot holes and other similar shaped openings are not allowed. Maximum width of splits or gaps is 1/8". Available, for the most part, by custom order.
K	Knot holes and other similar shaped openings cannot exceed 3/4" in diameter. Maximum width of splits or gaps is 1/4".
L	Holes cannot exceed 1" in diameter and splits and gaps cannot exceed 1/2" in diameter.
M	Holes cannot exceed 2 1/2" in diameter and splits and gaps cannot exceed 1".

Combination Core

Particleboard or fiberboard is combined in a balanced blend with veneer layers to form combination core.

Fire-Retardant Core

Particleboard and MDF cores can be treated during manufacturing to carry a UL stamp for Class I fire rating (flame spread 20; smoke developed 25).

Moisture-Resistant Core

Particleboard and MDF cores both are available with special resins that resist swelling when exposed to moisture.

