

Lecture
Wall Finishes

As the name “Wall Finishes” itself suggests that it is finish given to the wall to enhance the interior or exterior look of the structure. Wall finishes used for the interiors are quite delicate and need maintenance. The new contemporary trend has brought about great deal of increase in the usage of various types of wall finishes for the aesthetic purpose in the interiors and exteriors.

There are various materials available in the market that can be used as wall finish. In this lecture we are going to discuss the following the materials:

Wall Board

Wall Board is a board made of materials such as compressed wooden fibres, gypsum etc between stiff paper, and used to cover walls, partitions, etc. This board is used as wall covering especially in the interior walls.

Types of wall board

Beaver board - a light wallboard made of compressed wood pulp



Fiber board

It is a wallboard made up of wood chips or shavings bonded together with resin and compressed into rigid sheets. Fiber board manufacturers also produce

cellulose-based fiber board or "cane board" from a variety of plant or wooden-fiber sources. These panels/boards are used for insulation and aesthetic purposes as the wall finishes both in interiors and exteriors mostly on the walls and rarely on roofs.



Gypsum board, plasterboard

Wallboard with a gypsum plaster core bonded to layers of paper or fiberboard; used instead of plaster or wallboard to make interior walls



Cement board

A cement board is a combination of cement and reinforcing fibres formed into 3 by 5 feet (91 by 152 cm) sheets, $\frac{1}{4}$ to $\frac{1}{2}$ inch (6.4 to 12.7 mm) thick that are typically used as a tile backing board. Cement board can be nailed or screwed to wood or steel studs to create a substrate for vertical tile and attached horizontally to plywood for tile floors, kitchen counters and backsplashes. It can be used on the exterior of buildings as a base for exterior plaster (stucco) systems and sometimes as the finish system itself. Cement board adds impact resistance and strength to the

wall surface as compared to water resistant gypsum boards. Cement board is also fabricated in thin sheets with polymer modified cements to allow bending for curved surfaces.



Laminated board

It consists of thin layers of wood bonded together; similarly, **laminated** fabric consists of two or more layers of cloth joined together with an adhesive, or a layer of fabric bonded to a plastic sheet.

A wood Laminate is a thin sheet of material used to cover the core of a wood project in order to change the appearance of the material. Laminates may be any material, but typically they are made veneers, which are thin sheets of wood.

- 1. Laminate panel** is a type of manufactured timber made from thin sheets of substrates or wood veneer.
2. It is similar to the more widely used plywood, except that it has a **plastic, protective layer** on one or both sides.
3. Laminate panels are used instead of plywood because of their **resistance to impact, weather, moisture, shattering in cold (ductility), and chemicals.**



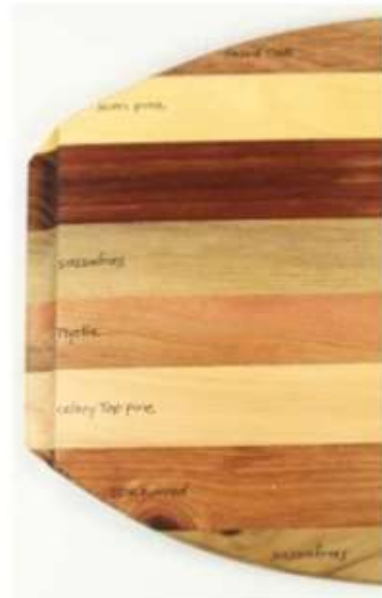
4. Laminate panel layers (called veneers) are **glued together with adjacent plies having their grain at right angles to each other for greater strength.**
5. The plastic layer(s) added for protection vary in **composition, thickness, color and texture** according to the application.



Types of Laminated Boards

A number of varieties of laminate panel exist for different applications.

- **Plywood + ABS(similar to scratch resistant panels) laminate panels**
- **Plywood + FRP(Fibre reinforced plastic) laminate panels**
- **Plywood + aluminium laminated panels**
- **Lightweight composite panels**



Sizes

The most commonly used thickness range from **1/8"** to **1/2"** and **3/8"**, in a variety of colours and textures.



Applications

Laminate panels are used in many applications that need **weather-proof**, impact resistant sheet material.

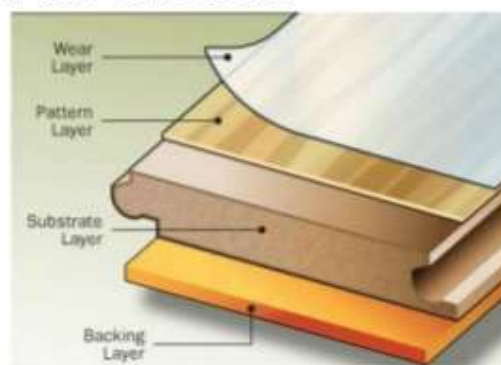
Typical end uses of spruce plywood are:

- **Floors, walls and roofs in cleanrooms**
- **Vehicle internal body work**
- **Packages and boxes**
- **Road cases**



At The Core

1. Laminated composites, plywood and veneered wood are all laminated wood products.
2. The difference is how they're made.
3. They all have ***a core with a coating or layer on both sides.***
4. The difference in laminated wood products typically is the **core of the material.**



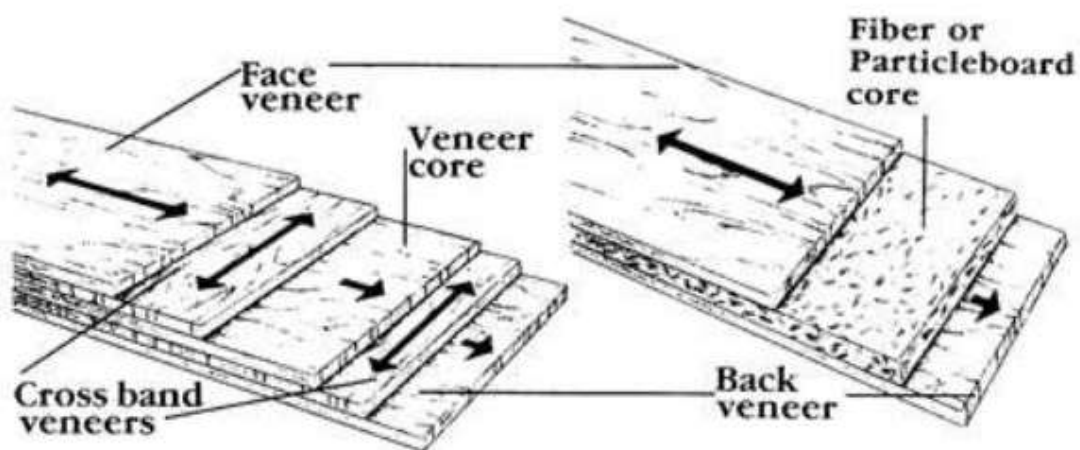
Laminate Construction

This photo is compliments of Mannington Laminate Floors



Plywood Core

1. Plywood is laminated wood. The core is made with multiply layers of real wood glued together to give it strength.
2. Even though not typically referred to as laminate, **plywood is nothing but laminated wood.**
3. The durability of plywood resides with its overlapping grain patterns.
4. Each consecutive layer is placed **perpendicular** to the **preceding** layer.



Composite Core

1. Laminated composite is **particleboard**. It consists of **particles or wood fibers glued together with resins, heat and hydraulic pressure**.
2. This type of laminated particleboard, sometimes referred to as MDL, or medium-density-laminate, resembles countertop laminate.



3. Builders and cabinetmakers use it for **cabinets** and **shelving** that is easy to clean and maintain because of its **slick, plastic surface** that resists moisture.
4. Most MDL cabinets are **solid color** -- typically **stark white** -- but imitation wood-grain patterns are available.



Cork

It is an impermeable buoyant material, the phellem layer of bark tissue that is harvested for commercial use primarily from *Quercus suber* (the cork oak), which is endemic to southwest Europe and northwest Africa. Cork is composed of suberin, a hydrophobic substance. Because of its impermeable, buoyant, elastic, and fire retardant properties, it is used in a variety of products, the most common of which is wine stoppers. The montado landscape of Portugal produces approximately half of cork harvested annually worldwide, with Corticeira Amorim being the leading company in the industry. Cork was examined microscopically by Robert Hooke, which led to his discovery and naming of the cell.



uses

1. Cork is used in musical instruments, particularly woodwind instruments, where it is used to fasten together segments of the instrument, making the seams airtight. Low quality conducting baton handles are also often made out of cork.
2. It is also used in shoes, especially those using welt construction to improve climate control and comfort.

Because it is impermeable and moisture-resistant, cork is often used as an alternative to leather in handbags, wallets and other fashion items.

3. Cork is used to make later-model pith helmets and also use for flooring work.
4. Cork is used as the core of both baseballs and cricket balls. A corked bat is made by replacing the interior of a baseball bat with cork



cork sheet



cork tile

