



**TAINUO  
WOODS**

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## Technical- Plywood advantages

1. High uniform strength - wood is 25-45 times stronger along the grain than across the grain. Crossing the adjacent sheets tends to equalise the strength in all directions.
2. Freedom from shrinking, swelling and warping - Solid wood exhibits considerable movement across the grain but generally negligible shrinkage or swelling in a longitudinal plane. The balanced construction of a plywood panel with the grain direction of adjacent veneers at right angles tends to equalise stress, thus reducing shrinkage, swelling and warping.
3. Non-splitting qualities solid wood splits fairly readily along the grain. Plywood by virtue of the crossed laminations can be nailed or screwed near the edges without damage from splitting.
4. Availability of relatively large sizes - Sawn timber can be obtained in fairly long lengths but only in relatively narrow widths. Plywood can be sold in sizes up to 6 ft \* 25 ft and by the scarf jointing of small sheets up to 6 ft \*40 ft, however 6 ft\*3 ft is the most common size.
5. Economical and effective utilisation of figured wood - Twenty sheets of veneer can be sliced from 1 inch of solid wood, when glued to a core of cheaper material a high grade panel is produced. This procedure thus effects distinct economies in the use of figured or the more valuable woods. In addition to facilitating the utilisation of attractive but fragile face veneers to give results which cannot be duplicated in solid construction. More effective utilisation is obtained by the matching of veneer in such a manner that the decorative effect due to the natural figure in the wood is enhanced by the regularity or symmetry of the design.
6. Dense woods can be sliced and bonded into plywood panels for use in furniture construction whereas furniture fabricated from solid timber would be far too heavy.
7. Ease of fabrication of curved surfaces - The trend of modern architectural design is to feature curved surfaces. The desired shapes can be readily fabricated



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in plywood construction, utilising male and female forms, or a single forming a vacuum press or autoclave

8. One of the important aspects in the manufacture of plywood is that it results in the conservation of timber by the elimination of the waste which occurs in sawing e.g. sawdust. Waste is confined to the small core which remains after peeling, and from the veneer which is lost in rounding up the log, and the elimination of such defects as knots and splits.