### Medium Density Fiberboard (MDF)

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<td><strong>Capacity:</strong></td>
<td>300 CBM/day</td>
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<tr>
<td><strong>Plant and machinery cost:</strong></td>
<td>3511.00 Lakh</td>
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<td><strong>Working Capital:</strong></td>
<td>0.00 Lakh</td>
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<tr>
<td><strong>Rate of return (ROR):</strong></td>
<td>27.00 %</td>
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<td><strong>Break Even Point (BEP):</strong></td>
<td>50.00 %</td>
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<td><strong>TCI:</strong></td>
<td>6613.00 Lakh</td>
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<td><strong>Cost of Project:</strong></td>
<td>6613.00 Lakh</td>
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Medium-density fibreboard (MDF) is an engineered wood product made by breaking down hardwood or softwood residuals into woodfibres, often in a defibrator, combining it with wax and a resin binder, and forming panels by applying high temperature and pressure. MDF is generally denser than plywood. It is made up of separated fibres, but can be used as a building material similar in application to plywood. It is stronger and much denser than particle board.

It can be finished to a smooth surface and grain printed, eliminating the need for veneers and laminates. Most of the thicker MDF panels (1.27 to 1.91 centimeters [cm]) (1/2 to 3/4 inch [in.]) are used as core material in furniture panels. Medium density fiberboard panels thinner than 1.27 cm (1/2 in.) typically are used for siding.

MDF does not contain knots or rings, making it more uniform than natural woods during cutting and in service. However, MDF is not entirely isotropic, since the fibres are pressed tightly together through the sheet. Typical MDF has a hard, flat, smooth surface that makes it ideal for veneering, as there is no underlying grain to telegraph through the thin veneer as with plywood. A so-called "Premium" MDF is available that features more uniform density throughout the thickness of the panel.

MDF may be glued, doweled or laminated. Typical fasteners are T-nuts and pan-head machine screws. Smooth-shank nails do not hold well, and neither do fine-pitch screws, especially in the edge. Special screws are available with a coarse thread pitch, but sheet-metal screws also work well. Like natural wood, MDF may split when woodscrews are installed without pilot holes.

Indian particle board and plywood industry dates back to the First World War. It has come a long way having grown nearly six-fold since its inception. The large producers account for 15% of the total production, producing some 38 mnsqm of plywood and block boards. There are several SSI units and other informal sector units contributing around 60% of the total production.

The Indian market for particle board and plywood is estimated in value terms, at over Rs. 37 bn. Of the total market, particle board including medium density fibreboard (MDF board) accounts for nearly a quarter of the market. Nearly 85% of the particle board is supplied by the organized sector. Western India has emerged as the leader in the particle board segment.

India organized furniture industry is estimated at around USD 8 bn and expected to grow at a CAGR of over 25% annually. Thus, due to demand it is a good project for entrepreneurs to invest.

Few Indian Major Players are as under:
- Bajaj Eco-Tec Products Ltd.
- Best Board Ltd.
- Century Plyboards (India) Ltd.
- Greenply Industries Ltd.
- Mangalam Timber Products Ltd.
- Nuchem Ltd.
- Shirdi Industries Ltd.
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