

Chimar Hellas State-of-the-Art MDF Technology

“According to the EPF annual report (2004-2005), MDF production in Europe over the past decade has been rising determinedly along the lines of an average annual growth rate of 13%. During the same period, the MDF consumption has also been expanding at an average annual growth rate of 13%, perfectly corresponding to production growth.”

This is a very promising industry situation for those involved in the sector knowing very well that MDF applications will further future demand growth mainly due to the so-called “laminated flooring effect”. Remaining loyal to this tendency Chimar Hellas S.A., a global technology provider for the resin and wood-based panels industry, has further expanded and refined its MDF technology. The business strategy of Chimar Hellas aims to improve product performance through:

- a significant reduction of formaldehyde emissions without decreasing the properties of the end product;
- enhanced moisture resistance MDF panels;
- adhesive systems production using high-added value products;
- increased reactivity and subsequently increased line speed;
- and finally, achievement of cost-effective systems.

Such an aim bears in mind that MDF encompasses a wide variety of applications such as furniture for both the office and home, fitments, shelves and storage units, table bases and tops, children’s toys and games, chairs, frames, benches, wall panelling, flooring, doors and many other interior and exterior applications. Accordingly, as far as the thin (<3,2 mm) board is concerned the company currently offers:

- *Super E0 – standard grade* with emission < 0,3mg/L JIS A 1460 F**** class
- *Moisture resistant E0 board* – emission <0,5mg/L JIS A 1460 F*** class

Latest development relates to the exterior grade E1 board category in 6-8mm and special requirements concerning the V100 and wet MOR tests. In addition, for customers who

work with dry resination systems, a specially developed adhesive system offering the mechanical and physical properties needed for the effective use of the subject resination systems, is also available.

Traditionally, the waste MDF panels resulting from the production and end-users’ applications were sent to landfill sites. This is now considered an unacceptable solution due to the high organic load included. Chimar Hellas has thus developed an innovative recycling technology (WO 01/39946), which enables the reuse of a large percentage of wood panels at the end of their service life, into new marketable fibreboards with minor capital investment in machinery.

Using specific chemicals at certain stages of the dry MDF process, it is possible to produce boards from fibres originating from a mixture of fresh wood and various types of waste panels. Use of adhesives and additives enables the production of new high-quality fibreboards according to the EN standards.

The main advantages claimed by this technology are a significant contribution to the reduction in the amount of “waste” wood panels that need to be deposited in landfill sites, providing at the same time, substantial savings in the demand for fresh wood, plus savings in investment and production costs.

Chimar Hellas has now been involved for 28 years in the development of state-of-the-art technology and will continue to create added-value, cost-effective products required by the needs of the MDF panel sector and the principles of eco-efficiency.

