

Summary

This report on back molding technology is about the recent state-of-art in this particular field of injection molding. It is based upon literature and patent research, as well as on company information and the know-how and experience of the Mercatel Groep BV. All relevant back molding technologies are explained and discussed, pointing out the product-market-combinations of interest for back molding.

It is possible to decorate injection-molded products by back molding, that is by placing a decoration inside the mould prior to injection. Although the idea itself is not new at all, the number of applications of back molding is increasing due to developments in material, process equipment and process technology. Back molding applications are penetrating more and more Product-Market-Combinations. This for reasons beyond decoration, like reduction of cost, environment and for adding functions.

Back molding is a very powerful and promising technology with many possibilities for product development and diversification. For existing markets as well as for possible new markets as shown in the Technology-Market-Combinations matrix in table 1.

TMC	Consumer goods	Packaging	Automotive	Electronics
Fabric-melt			XX	
In-mold-printing	X		X	
Back molding film	XX		X	
In-mold-labeling		XX		
Insert molding			X	X
Outsert molding				XX
Overmolding	X		X	X

Table 1: technology-market-combinations

With respect to opportunities for companies already active in back molding of film for consumer goods, the table shows two directions for developments. That is, targeting existing market using other back molding techniques or targeting new markets using known back molding technique.

Back molding can be carried out with standard injection molding machines or with special designed machines. But, in either case, the technology of back molding must be understood fully in order to achieve good results.

This report, together with the full copies of the references forms a technical reference guide for back molding.