

Recycling of ECO-M products

The environmental concerns with waste management have recently been targeted at packaging and packaging waste. As landfill sites become less available there has been a growing demand for the recovery of these post-consumer packaging materials. Detailed below, is a summary of the actions which we have taken, and the results obtained, in technically examining the recycling of ECO-M Transfer Metallized products.

Legislation encourages re-use, recycling, and energy recovery of packaging materials. However, it is also desirable to minimize the packaging in the first place and here metallized materials have a most important part to play.

Preston Board & FMS Foils recognize this need and we, therefore, provide you with the following information on our product and process.

1. Recycling and the ECO-M Transfer Metallizing Process.

When we refer to recycling as being environmentally desirable one naturally thinks in terms of the product. Preston Board & Packaging produce zero-waste from our manufacturing process with all waste product supplied to our sister mill Romiley Board Mill where waste product is converted in 100% recycled chipboard – this material is returned to Preston Board and laminated into a number of chipboard based products. With regards to FMS Foils ECO-M transfer metallizing process, we also consider recycling within the process itself, where it is a very important element. In our process the carrier film, used to transfer the metallic layer to the substrate, is either sent to be converted into R-PET or used for other flexible packaging applications e.g. sweet wraps. Although we are moving towards total water based technology some of the current coatings and adhesives are solvent based. However, these solvents are collected and recycled with a total recovery in excess of 90%.

2. Recycling ECO-M Transfer Metallized Papers and Boards.

Independent research has been carried out by TNO (NL), PTS (D) and PIRA (UK) studying the recyclability of ECO-M Transfer Metallized Papers & Boards.

The study on these products concludes: “The effect of 10% transfer metallized paper in a wastepaper batch, consisting of a domestic wastepaper quality, is negligible. There is no significant increase or decrease in the physical/mechanical properties of test sheets. The metallized paper does not give an increase in the reject fraction in the membrane separator. The visual appearance of the different sheets shows that 10% metallized paper can hardly be found in these sheets. Therefore, the conclusion can be that 10% of Transfer Metallized Paper in domestic wastepaper has no significant effect on the properties or appearance of the recycled paper products from it”.

Likewise the study concludes that: “ECO-M Transfer Metallized Papers and Boards used in applications such as box wrap, laminates and flexible packaging can be part of the normal household waste used paper stream and as such can be collected and recycled.”



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A major UK recycled board producer – Romiley Board Mill confirmed:

Further recycling trials have been carried out successfully with Romiley Board. These trials were carried out using an alkaline pulping solution resulting in a recycled paper being produced which had no evidence of metallic particles. Therefore, the metallized paper was considered to be totally recyclable under these conditions. “The laboratory tests did not give a trigger at the detector. No doubt that the material can be dissolved in a pulper and used in the middle layer of any recycled chipboard”.

3. ECO-M & Weight Reduction.

In any packaging application where both aesthetics and a moderate moisture barrier are required the transfer metallized process enables you to achieve both, whilst giving a significant saving in weight per m²/pack against competitive laminated materials. Including primer, we add 3gsm (Paper) and 5gsm (Board) to the original board and paper weight less than 1/3rd of comparable materials.

4. ECO-M & Recycled bases.

Our process is extremely tolerant and allows the use of recycled papers and boards to give aesthetically appealing finishes in silver, gold and holographic finishes on product produced from the post-consumer waste stream.

5. ECO-M & FSC

We been accredited since 2011 ensuring that we can pass on the chain of custody to customers / end users who desire this certification.

6. ECO-M & Foil Blocking

Although perhaps using larger areas of metallization in the printing process our ability to provide end users with a material that does not leave both scrap polyester and several coatings for them to dispose of is seen as a significant advantage.

In Conclusion

Preston Board & FMS Foils are socially responsible companies. We not only take our own impact on the environmental very seriously engaging in both internal re-use and recycling but offer significant reductions in product weight by the utilization of high bulk substrates and materials based on post-consumer waste.

If you want to be more aware of our product range and its ability to assist you in meeting your targets and legislative commitments, whilst still maintain an aesthetically appealing point of sale presentation in a silver, gold or copper finish, then please contact Ian Mackay (ian@prestonboard.co.uk) or Doug McBride (dougm@fmsfoils.co.uk)

Preston Board & Packaging is accredited to ISO 9001 and ISO 14001 standards.



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