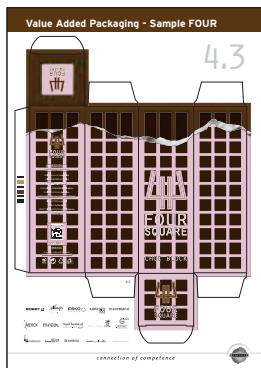


Value Added Packaging - Tutorial 4.3



FOUR 4.3

USP:

Effects:

Suitability:

Machine requirements:

Design requirements:

Special features:

Low-cost, inline offset embossing with strong embossing effect

Inline coating and debossing on Black

Cosmetics industry | Food industry | Tobacco industry

Four-colour offset press with UV equipment and double coating unit; embossing press

Distinct motif edges that can be brought out in the embossing forms

The job was produced for low migration and is suitable for indirect food contact

Description:

In design FOUR 4.3, we present a new, inline embossing process from manroland sheetfed GmbH, where the embossing is impressed directly into the UV coating during printing. This makes it possible to avoid additional finishing steps on flat-bed die-cutters for various print jobs. As a result, production costs can be reduced, while still achieving embossing effects with a similar appearance.

Remarks:

When preparing print jobs of this kind for the tobacco and food industries, it must be ensured that all the components used display low migration and have corresponding approvals and certificates. This applies both to the substrate used and to the printing inks and coatings, as well as to the foils and adhesives.

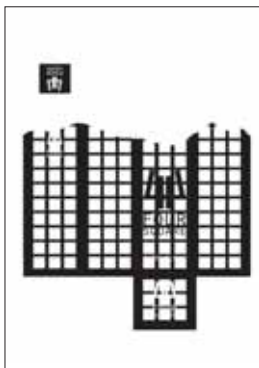
In the job presented here, low-migration inks were processed in combination with a low-migration UV coating and low-migration dispersion coatings on a likewise certified cardboard. These components are suitable for indirect food contact. Provided that the selected printer is also certified, the print job as a whole is thus suitable for use in indirect food contact applications.

3D visualisation before going to press was performed using the Esko Studio Visualizer.

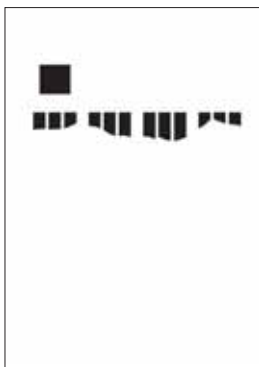
Value Added Packaging - Tutorial 4.3



Realisation:



Inlinelmpress form



Debossing form

When designing this job, we first select the suitable colour space. For this finishing example, we specifically decided to work in the field of food packaging, selecting a confectionery packaging as the basic design for FOUR and designing the basic visual elements. The chocolate is designed completely as an illustration in this context. To get the torn-off aluminium foil, we first photograph different views of a crumpled original foil with different exposure settings, subsequently editing the selected picture in Photoshop. Various image flaws are corrected at this point, and the image obtained in this way is then reduced to a greyscale version. To achieve the greatest possible impact of the effect, we select a black background for this design.

We next create the Inlinelmpress embossing form. To do so, we create a spot colour and elaborate all the elements that are later to be impressed into the coating. Since, owing to the nature of the process, Inlinelmpress can only ever simulate debossing by impressing any desired form into the coating, we want to use this job to demonstrate that, given an intelligent choice of effects, embossing is also possible after die-cutting of the packaging. We achieve this by extending the debossing form beyond the trim edges of the packaging, as a result of which all non-embossed areas in the coating subsequently have a raised effect. Moreover, as a result of the displacement of larger quantities of coating, this solution also leads to greater build-up of the non-embossed coating layers, this having a positive influence on the quality of the effect. All elements are subjected to manual spreading and choking, and placed on top layers in Illustrator so as to overprint. Finally, we create the debossing forms, where we again specifically want to create a contrast. Debossing is used only in the area of the chocolate, in order to optically enhance the depth of the illustration. Only in the area of the top flap are the two embossing forms superimposed.

Once all the ink and coating forms have been created, we proceed to full-page make-up in 3B format. After consulting the printer, we then export the file in the PDF-X3 (2002) standard. The colour profile used for this job is ISO Coated V2 (ECI). In Acrobat, we once again check all forms for unwanted separations (in this context, it is always worth while to take a look at Black, in particular), as well as the interplay of the embossing and coating forms with the printing form. Since we created all colour channels in a single file, the register accuracy of all forms, or the possible presence of spreading/choking errors, can already be checked during quality assurance in Acrobat.

A clear and complete job description for the printer, the toolmaker and the finisher is standard for jobs of this kind and helps rule out sources of error ahead of producing complex print jobs.

For final offset production of this job, we select a 25 cm³/m² engraved roller for the gloss UV coating, applied via a stripped blanket, in order to obtain the maximum possible coating thicknesses for the Inlinelmpress process, which takes place on the second coating unit using a special embossing plate



COATING
SENOLITH® WB GLOSS
PRIMER FP DC 350071
by
WEILBURGER Graphics



INK
SunPak® LMQ
Process Yellow LMP26
by Sun Chemical



INK
SunPak® LMQ
Process Magenta LMP27
by Sun Chemical



INK
SunPak® LMQ
Process Cyan LMP25
by Sun Chemical



INK
SunPak® LMQ
Process Black LMP46
by Sun Chemical