

Value Added Packaging - Tutorial 3.3



THREE 3.3



USP:

Effects:

Suitability:

Machine requirements:

Design requirements:

Special features:

Great haptic and visual contrast

Soft surface effects in combination with deep embossing

Cosmetics industry | Food industry | Tobacco industry

Four-colour offset press with double coating unit; embossing press

Distinct motif edges that can be brought out in the coating form

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

Description:

This design illustrates that soft coatings can be applied not only as full-flood coatings, but also as spot coatings. As a result of the interplay of visual matt/gloss contrasts, together with the different surface finishes, the design acquires visual and optical depth. The final deep-embossing step additionally enhances this impression, helping to further improve the soft appearance and grip of the packaging.

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 hot-stamping foils and adhesives.

In the job presented here, low-migration inks were processed in combination with a low-migration primer on a likewise certified cardboard. These components are suitable for direct food contact. The final SENSOSOFT® coating is certified for use in indirect food contact. Therefore, the print job as a whole is permissible for use in indirect food contact applications.

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

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Realisation:



SENSOSOFT® coating form



Embossing form

When designing this job, we first select the suitable colour space. It should be reminiscent of fruits and thus match the soft surface of the soft coating. Once the colour design has been created and finalised, we create a separate layer in Illustrator for the partial soft coating. In this layer, and working on the basis of a spot colour we have created, we now positively bring out all the elements that are later to appear soft. We take care to use only solid tones (100%) for this design, dispensing entirely with transparencies. This is necessary so as not to have any halftones in coating plate production, meaning that the coating plate can be created without screening. Screen tints, or even gradients, in coating plates are not only very coarse, but also hard to handle on the press, because the fine flexo pads tend to cause them to fill in, depending on the consistency of the coating. The consequences of this are then usually a major cleaning effort during the production run and frequent machine stops in combination with low production speeds, this very quickly increasing the production costs.

The coating form created in this way is now placed on one of the topmost layers, after which manual spreading and choking is performed for the final coating form, before setting all printed elements of the form to overprinting.

Once all the ink and coating forms have been created, we proceed to full-page make-up in 3B format, then exporting the data in the PDF-X3 (2002) standard after consulting the printer. 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 coating form with the printing form. Since we created all colour channels in a single file, the register accuracy, 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. In the case of large-scale jobs, it is also always worth while to contact all the service providers even during the creative phase and discuss the individual work steps with them. This can help not only to reveal technical problem areas, but also to rule out any technology and/or material incompatibilities. Moreover, when dealing with complex jobs outside the standards, provision should always be made for rotary proofing, in order to test the interplay of all materials and technologies under production conditions and enable optimisation before the start of production.

For final, inline-finished offset production of this job, we select a 13 cm³/m² engraved roller for the gloss primer. The SENSOSOFT® matt coating is applied via an 18 cm³/m² engraved roller. To avoid blocking or offsetting, which occurs quite often - particularly when working with double coating forms for dispersion-based coatings - we additionally pay attention to processing only small piles in order to minimise the contact pressure on the sheets near the bottom of the pile.



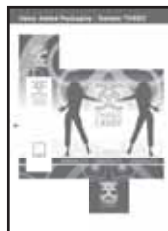
COATING
SENSOSOFT® WB MATT
COATING FP NDC
350200 by
WEILBURGER Graphics



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