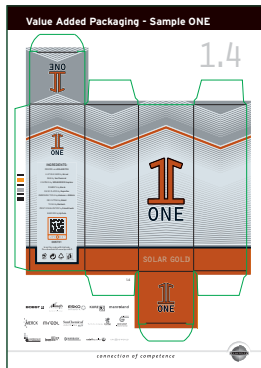


Value Added Packaging - Tutorial 1.4



ONE 1.4



USP:

Outstanding design through multiple optical effects

Effects:

High pigment contrast due to a combination of pre-coated and inline-coated pigments

Suitability:

Cosmetics industry | Food industry | Tobacco industry

Machine requirements:

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

Design requirements:

Distinct motif edges that can be brought out in the pigment lacquers

Special features:

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

Description:

This job picks up a trend in the packaging industry, where pigmented lacquers are pre-coated prior to the actual printing process in order to enhance the design and upgrade the optical qualities of the substrates. This permits designs that can often be reproduced without dot fringes of the coating plates, or enable soft transitions in the coating form through intelligent matching of the four-colour set to the pre-coating.

The present design in Sample 1.4 is based on the Euroscale colour space and works with two different pigments. The pre-coated Icy White pigment gives the print job sample a slightly metallic character in the highlights and increases the white impression of the material. In contrast, the Solar Gold pigment applied inline was consciously coated over the orange-coloured elements of the packaging and gives them a gold-like character, depending on the viewing angle.

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 lacquers, as well as to the hot stamping foils and adhesives.

In the job presented here, low-migration inks were processed in combination with certified pigments in a low-migration primer and a low-migration carrier lacquer on a likewise certified cardboard. These components are suitable for direct food contact.

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

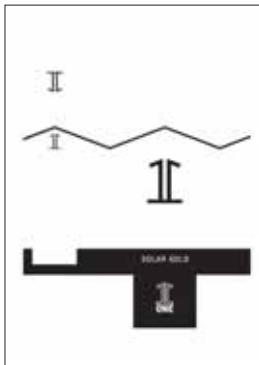
Value Added Packaging - Tutorial 1.4

Realisation:

When designing this job, we first select the matching pigments and inks. We decide to work with an orange/gold tone on white for design ONE 1.4. In this context, the line structure typical of design ONE is created in the black form and applied over the pre-coated Icy White pigment.



Icy White coating form



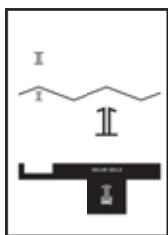
Solar Gold coating form

The primer coating form for the Icy White is simply designed for full-flood coating on the basis of the packaging contour with trimming on all sides. When defining the finest lines of the final Solar Gold form, we pay attention to the technical specifications of the coating plate used and, to be on the safe side, thus stay above 0.25 pt for both positive and negative in order to preferably prevent breaks in the lines or filling-in of the coating plate. The coating forms are created as spot colours, and all elements are set to overprint. In this way, we can safely put the coating forms on the topmost layers in Illustrator.

The next task is to elaborate the embossing forms for the deep embossing. For this job, we decide to bring out only the logos. These forms are now likewise created as over-printing spot-colour forms and put on top layers in Illustrator. Halftones can also be used in this case, in order to create three-dimensional embossing dies with soft edges or reliefs. The toolmaker need only be told whether high-relief or deep embossing is involved, and which halftone value is to have zero level. As a result, combinations of high-relief and deep embossing are also possible, which can greatly enhance the haptic and optical characteristics of the embossing, given an appropriate substrate. We, however, decide on simple deep embossing with sharp edges.

Once all the ink and embossing forms have been designed, we proceed to full-page make-up (in 3B format in this case). 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 also 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.

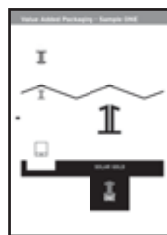
For final production of this job, we select a 13 cm³/m² engraved roller for the primer and a 9 cm³/m² roller for the Solar Gold lacquer, in order to keep the pigment applied as unobtrusive as possible. Since the Solar Gold pigment measures only 5 - 25 µm, we need have no worries about using the 9 cm³/m² hexagonal engraved roller in this in-stance.



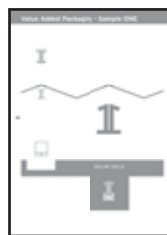
COATING
SENOLITH® WB EFFECT
COATING GOLD LUSTRE
305 350983 by
WEILBURGER Graphics
with Solar Gold pigments
by Merck



COATING
SENOLITH® WB GLOSS
PRIMER STAMPABLE
350520 by
WEILBURGER Graphics



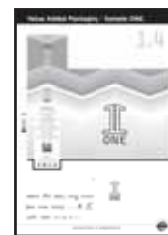
INK
SunPak® LMQ
Yellow LMP26
by Sun Chemical



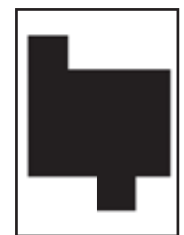
INK
SunPak® LMQ
Magenta LMP27
by Sun Chemical



INK
SunPak® LMQ
Cyan LMP25
by Sun Chemical



INK
SunPak® LMQ
Black LMP46
by Sun Chemical



OFFLINE PRE COATING
SENOLITH® WB EFFECT
PRIMER PEARLESCENT
6103 LA 8-22/067 A by
WEILBURGER Graphics
with Icy White pigments by
Merck