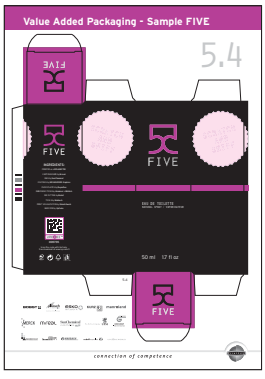
Value Added Packaging - Tutorial 5.1, 5.2, 5.4

FIVE 5.1

FIVE 5.2



FIVE 5.4

USP: Modern packaging design with three different effects:

Effects:
FIVE 5.1 Pigments for luxurious surfaces from different viewing angles
FIVE 5.2 Hybrid coating effects with extreme optical and haptic effects
FIVE 5.4 Scratch-and-sniff coating for olfactory effects

Suitability: Cosmetics industry | ~~Food industry~~ | ~~Tobacco industry~~

Machine requirements: Five-colour offset press with UV equipment and double coating unit; embossing press

Design requirements: Distinct motif edges that can be brought out in the scratch-and-sniff coating form

Special features: The job was not produced entirely with low-migration materials and is thus not suitable for food contact applications

Description:

Designs FIVE 5.1, 5.2 and 5.4 present three different UV coating effects. They are created on a 3B sheet as a mixed form and produced inline in a single machine pass, with the exception of the scratch-and-sniff coating, which is applied offline.

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 materials were not selected throughout. Consequently, this job is not suitable for use in the food and tobacco industries.

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

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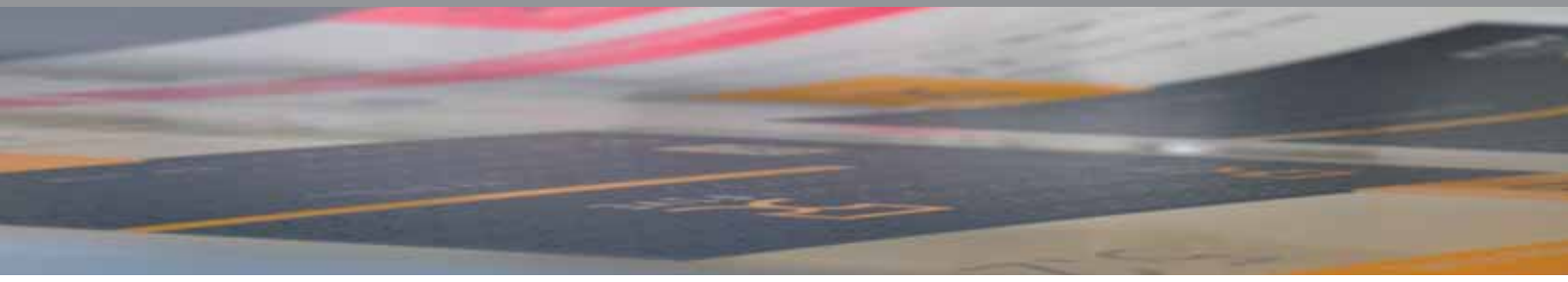
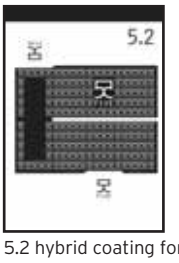


Realisation:

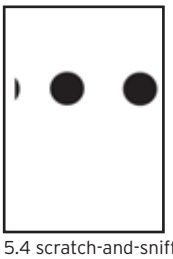
When designing this job, we first select the suitable colour space. The FIVE product line is intended to reflect a modern, contemporary design and be realised with as little colour and finishing effort as possible. For each design, we decide to work with just one, very brilliant spot colour in combination with full-surface black.

We next create the individual coating forms. For design 5.1, a pigmented coating is applied over the full surface. Two forms have to be created for design 5.2 – a spot-colour printing form for the printing unit component of the UV effect coating and a form for the UV coating unit component of the two-component coating system used. A pure UV coating system is applied in this finishing process, meaning that there is no need for an oil-based printing coating. This greatly improves the drying properties and light-fastness of the final print job (oil-based printing coatings tend to yellow when exposed to UV light). The coating form for partial application of the scratch-and-sniff coating is elaborated last. All elements are subjected to manual spreading and choking, and placed on top layers in Illustrator so as to overprint. We work exclusively with solid tones for all coating forms in order to avoid screening of the coating plates. Only the printing unit coating for design FIVE 5.2 can be created like a regular spot colour, since it is applied by a normal printing plate. We therefore give it a highly filigree structure and use design elements that would be impossible with a coating plate. Finally, we create the debossing forms. Debossing is used only in the area of the product logos, in order not to overload the design of the three forms.

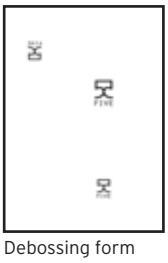
5.1 pigment coating form



5.2 hybrid coating form



5.4 scratch-and-sniff coating form



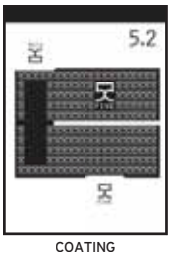
Debossing form

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. 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.

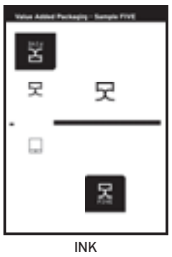
A clear and complete job description for the printer, the toolmaker and the finisher is standard for jobs of this kind and helps rule out sources of error ahead of producing complex print jobs.

For final offset production of this job, we select a 22 cm^3/m^2 engraved roller for the UV gloss coating, which is applied via a stripped blanket and simultaneously used as an effect coating for design 5.2. The pigment coating is then applied inline using a 9 cm^3/m^2 engraved roller. For offline application of the scratch-and-sniff coating in the final step, we again select the 22 cm^3/m^2 hexagonal engraved roller, in order to transport as many aroma-containing microcapsules as possible and so as not to already destroy these relatively large capsules during application by the engraved roller. When using scratch-and-sniff coatings, it must always also be ensured that the coatings are carefully stirred by hand before the start of printing. In this context, control of the coating unit temperature can also help prevent the possible destruction of the microcapsules during the printing process.

COATING
SENOLITH® UV GLOSS
LACQUER HYBRID FP
NDC 360453 by
WEILBURGER Graphics



COATING
SENOLITH® UV OFFSET
GLOSS VARNISH HYBRID
369402 by
WEILBURGER Graphics



INK
StarLux®
Pantone 123C
by **Sun Chemical**

INK
StarLux®
Black intense USL24
by **Sun Chemical**