

Value Added Packaging Tutorial: RLS 3.1, 3.2



Real Life Sample 3.1



Real Life Sample 3.2

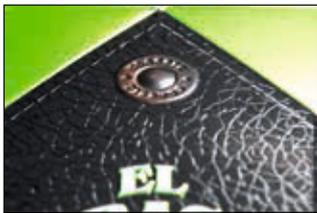
Version: 2016

USP:	Efficient inline production with strong visual and tactile effects
Effects:	Film laminating, hot foil stamping, Iriodin® coating, UV gloss coating and matt dispersion coating with tactile effect, rotary debossing, embossing
Suitability:	Cosmetics industry Food industry (outer packaging for closed containers only) Tobacco industry
Machine requirements:	Heidelberg ICS 670 with 8 EVA platforms, additionally equipped with 7 flexo modules (5 x WB flexo and 2 x UV flexo), 1 gravure printing unit, 1 laminating module, 1 hot foil stamping module and 1 rotary debossing module, in-line die-cutting and embossing station, in-line waste stripping station, delivery unit.
Design requirements:	Distinct motif edges achieved by cold and hot foil finishing, embossing and coating effects; greatly differing textures (leather, metal) for high contrasts
Special features:	Both design versions are based on the same machine configuration and ink/coating sequence (WB flexo laminating adhesive / silver film / gravure printing, opaque white / flexo green / flexo red / flexo black / UV flexo black / SENOLITH® WB GLOSS COATING with Colorstream® T10-03 Tropic Sunrise SENOSOFT® WB MATT COATING / hot foil stamping / SENOLITH® UV GLOSS COATING / rotary debossing / die-cutting and embossing) and are produced together, in-line on a mixed sheet.
Description:	This new project of the Value Added Packaging Initiative is intended to show that even folding cartons with a very high degree of finishing can be efficiently produced inline on a Heidelberg ICS 670 printing system. In producing these two outer packages for luxury drinks, a variety of foil and coating effects, pigments and embossing effects were used to produce realistic, high-end packaging in a single production cycle. A combination of gravure and flexo printing was used in this context. Although likewise possible, the use of screen-printing components was dispensed with. Instead a newly developed rotary embossing station was used for the first time on this job. The special shape of the packaging was developed by A&R Carton. Reminiscent of a cut diamond, it features finely arched lateral surfaces, thanks to which the effects can develop their full impact at the POS, due to their special reflective properties.
Remarks:	<p>In this complex production process, involving different printing methods, substrates and materials, numerous parameters had to be taken into account from the outset during production planning. First, a defined scaling factor had to be applied during form production (cylinders/flexo plates/die-cutting and embossing tools) to cater to the varying shrinkage of the board web resulting from the different contact pressures and drying temperatures. Without this, accurate production is impossible. Second, the materials, inks, coatings and foils used had to be coordinated. Optimum results can only be achieved if there is perfect interplay between material, man and machine. Consequently, it is essential for a project of this kind to be clearly discussed ahead of production with everyone involved, so as to avoid technical problems in advance and, where appropriate, incorporate changes into the design and production planning.</p> <p>Although all-over film laminating was used on this job, selecting a suitable substrate is still decisive for the quality of the final result. The Carta Allura coated folding-carton board from MetsäBoard is ideally suited to jobs of this kind thanks to its homogeneously coated surface, its easy shaping and its high dimensional stability during processing.</p>

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Realisation:



In these two printing jobs, the main focus was on achieving the greatest possible contrast between the tactile and optical effects. To this end, a very fine leather texture was created in Illustrator for use both as a coating form (UV gloss coating) and rotary debossing form. Owing to the fine lines in the gloss coating, this creates a strong optical contrast with the SENOSOFT® WB MATT COATING beneath, which has a very soft-looking surface. Following final debossing of the texture, an effect resulted that not only looks like leather, but also feels like it.

Next, the metal press studs were created in Illustrator, paying the greatest possible attention to the three-dimensional nature of the embossing form. Only the interplay of silver laminate, printed image and embossing creates a successful imitation of metal press studs. All the lettering, logos and brand names were then prepared for embossing in a similar manner. All green and red areas were printed directly onto the laminate in this context to emphasise the metallic character of the packaging. In contrast, parts of the embossed lettering and the leather were completely underprinted with opaque white.

The silver-coloured lateral surfaces of the red packaging were finally covered with the matt coating to create optical and tactile contrast between matt aluminium and chrome. The partial application of Iriodine then produced a second degree of matting that appears lighter or darker than the surrounding area, depending on the viewing angle. As a special effect, the matted silver surface turns into a glossy silver in the presence of high atmospheric humidity (e.g. in a refrigerated display), then changes back to matt aluminium again when dry.

The completed designs were then rendered as finished screen versions via Esko Visualizer and used for discussion with the customer and the entire production team. The interplay between the individual finishes and the technical specifications can already be visually verified and, if necessary, modified at this point.

Production of the final print data should then be handled by a repro studio that has sufficient experience with this production system and is also familiar with, and capable of applying, the necessary register and scaling requirements of the production system. This is followed by a final quality control step before the data are forwarded to the individual production partners for preparation of the plates, sleeves and tools.

Finally, appropriate anilox rollers have to be used for production. In this context, the laminating adhesive is applied with 120 l/cm and a 12 cm³/m² anilox roller, UV flexo Black with 440 l/cm and a 4.4 cm³/m², Colorstream® T10-03 Tropic Sunrise in the carrier coating with 100 l/cm and a 12 cm³/m², SENOSOFT® WB MATT COATING with 80 l/cm and a 14 cm³/m² and SENOLITH® UV GLOSS COATING with 120 l/cm and a 10 cm³/m².

