

Mockup Creation and Color Management in Packaging Printing

gmg color

Imagine.

 Roland®





Juicy

PREMIUM

Orange

Natural
100%
Juice

1 Liter

Challenges in packaging printing

Great pressure of time and cost

- ▶ The product life cycle of consumer goods has become significantly shorter in recent years. Products are developed and launched on the market at an ever-increasing pace. The result is great pressure of time in packaging production.
- ▶ In the development and approval phase of packaging designs, the dispatch of prototypes and proofs by mail can substantially delay the approval process. Communication between service provider and customer costs valuable time.
- ▶ Proofs or prototypes made of original materials are often still produced using analog systems, and press proofing is also necessary in some cases. That causes high costs, and the repeatability of both solutions has its limits.

Demanding production

- ▶ At the start of a production process, it is usually not certain where and how a job will be printed. Consequently, the data often still needs to be adapted to the individual printing conditions in offset, gravure or flexo printing. Third-party data also has to be checked in relation to the subsequent printing process. That is not only a labor-intensive procedure, but also calls for great flexibility in repro houses.
- ▶ Dealing with different color standards and specifications defined by customers – often well-known manufacturers of branded goods – is a major challenge, since it is very important to maintain a consistent brand design in the different production processes.
- ▶ The ultimate color result is intended to be as consistent as possible, also when repeat jobs are involved or packagings are produced by different printing processes and on different materials.
- ▶ Extensive expertise, process control, and flexibility are necessary in order to reliably comply with these demands in the usually stressful environment of day-to-day production operations.

Not From Concentrate
100% Orange Juice

Nutrition Facts	
Serving Size 1 bottle (500 mL)	
Amount Per Serving	
Calories 130	
%Daily Value*	
Total Fat 0 g	0%
Sodium 0 mg	0%
Potassium 560 mg	16%
Total Carbohydrate 33 g	11%
Sugars 28 g	
Protein 2 g	
Vitamin C 10%	Calcium 2%
Vitamin D 3%	Folate 15%
Thiamin 10%	

Not a significant source of calories from fat, saturated fat, trans fat, cholesterol, dietary fiber, Vitamin A, and iron.
*Percent Daily Values are based on a 2,000 calorie diet.

INGREDIENTS: PASTEURIZED ORANGE JUICE



Time and cost savings



- ▶ In combination with GMG proofing software, the new inkjet printers from Roland, e.g. the Roland LEC-330, 540 or the VS series permit maximum color quality in mockup production and packaging proofs on a great diversity of materials, such as paper, film and metallic foil. At the same time, this method is significantly faster than an analog proofing system or a press proof. The cost for proof, platemaking, cylinder preparation or photoengraving are reduced significantly.
- ▶ GMG proofing software guarantees particularly high color accuracy, repeatability, and detail definition when producing contone and halftone proofs, on the Roland VS series with white and metallic or on the Roland LEC with white and varnish support.
- ▶ The flexibility of packaging prepress operations is greatly increased, since GMG software permits particularly simple, automated proof production in combination with Roland's digital printers.

Color-accurate mock-ups



- ▶ Not only the Roland LEC-330, 540 and the VS series are supported by the GMG proofing software. The color management software GMG ColorServer/ GMG SmartProfiler can be combined with a wide variety of Roland output devices, to obtain consistent, accurate color results on virtually any substrate.
- ▶ In mock-up production, the Roland inkjet printers with integrated cutting blade are additionally suitable for finishing steps, such as cutting, contour cutting, kiss-cutting and even creasing.
- ▶ In this way, packaging prototypes made of original materials can be produced rapidly and at low cost, with support of varnish, white and metallic colors.



**SHAKE WELL
KEEP REFRIGERATED**

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Great production reliability



- ▶ For reasons of cost, the long run lengths and high quality demands customary in the packaging sector call for the most accurate possible simulation of the ultimate print product before the forme is produced.
- ▶ GMG FlexoProof permits color-accurate output of the 1-bit data on the Roland printers from the imagesetter RIP as a halftone proof. As a result, potential sources of faults, such as breaks, moiré, etc., are detected at an early stage, thereby significantly increasing production reliability.

Consistent color standards



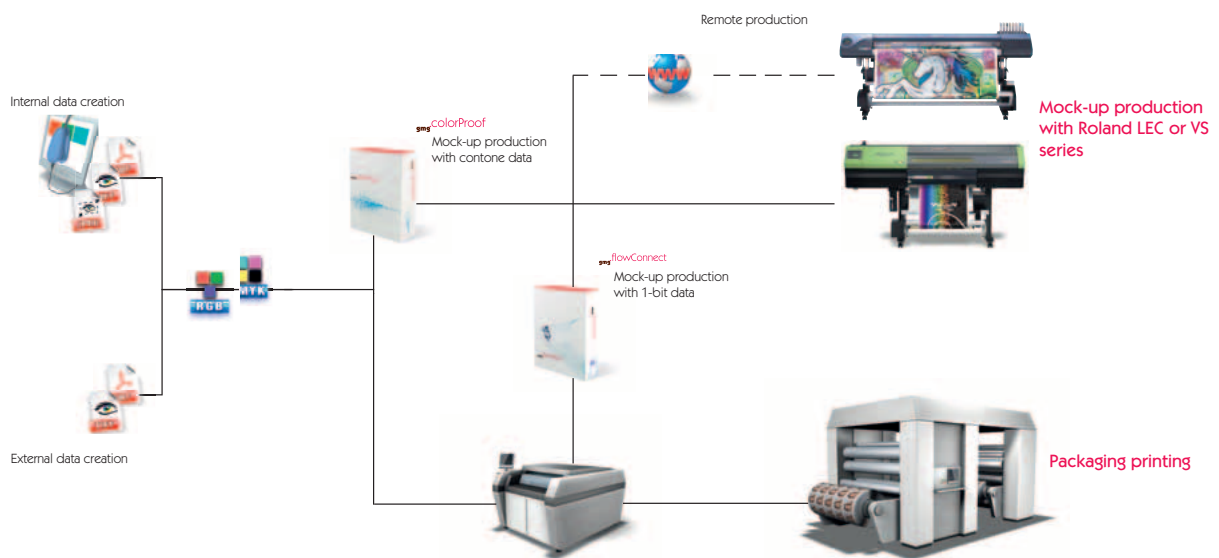
- ▶ Using GMG ColorServer and a standard working color space, such as PaC. Space, printing data can be prepared once and proofed with the GMG proofing solutions. When the printing process is definite – offset, gravure or flexo printing – GMG ColorServer is then used to automatically convert the data to the respective printing color space.
- ▶ The prepress process is standardized, and substantially less time and money is expended.
- ▶ The GMG/Roland solutions offer prepress businesses in the packaging sector a decisive improvement in flexibility and a high degree of automation.



Creative

Prepress

Printing process



GMG software solutions and the Roland printers keep you in control of color – from prepress mockup and printing. The GMG/Roland solutions form a single, modular family and support the common international standards, as well as your in-house standards, of course. Give them a try and convince yourself.



GMG ColorProof GMG FlexoProof

GMG proofing solutions guarantee particularly great color accuracy and repeatability when producing contone proofs (GMG ColorProof) and halftone proofs (GMG FlexoProof). In combination with the Roland printers even spot colors can be simulated. GMG FlexoProof guarantees the sharpest dot definition, already taking the individual tone value increase and the first printable dot into account in the proof. Individual substrate structures, such as paper fibers or corrugated cardboards, can likewise be simulated, as can the effects of register shifting and missing dots.



GMG ColorServer GMG SmartProfiler

GMG ColorServer and GMG SmartProfiler achieve perfect color matching, maximum repeatability and outstanding print quality on a wide variety of inkjet printers from Roland. These printers are optimized for digital proof and mock-up production in the packaging industry, and deliver high resolution on any substrate, such as shrink film or metal foils, tinfoil and composite cardboard. The extremely resistant, high-quality UV inks for the LEC series and eco-solvent inks for the VS series mean that the same finishing processes can be applied as for the end product.



Roland printers

Roland manufactures reliable, versatile and high-quality inkjet devices. Users enjoy the efficiency of the renowned integrated print and cut devices. The LEC-540, LEC-330 and the VS series are combined printers/cutters with extensive advantages for the packaging industry. The LEC-330 and LEC-540 are UV printers/cutters that feature CMYK, white and glossy ink. The ink dries under influence of the LED lamps. These lamps don't produce heat so printing on heat-sensitive materials is possible. In fact, the LEC prints on a wide range of original materials used for packaging. The LEC-540 also has a creasing function, so the machine can print, cut and crease in one fluent workflow. The VS series are printers/cutters that feature up to eight colors, including metallic silver and white. By combining the metallic eco-solvent ink with CMYK, over 500 metallic shades can be created. This is a big advantage since it's impossible to imagine the packaging industry without metallic colors.





About GMG and Roland

With more than 25 years of experience in the graphic arts industry – particularly in color management and proofing since the early 1990s – the GMG name is synonymous with a guarantee for high-quality solutions for everything to do with color. Over 11,000 systems are in successful use around the globe in every segment of the graphic arts industry: from advertising agencies, prepress houses, offset, flexo, packaging, digital, and large-format printers, all the way to international gravure printers.

Roland DG Corporation manufactures large format printers, cutting plotters, integrated printer/cutters, engraving and milling machines, laser scanners and metal printers. These products are mainly used in the graphical, sign, jewelry, engraving and medical industry.

GMG/Roland solutions are characterized by quality, reliability and repeatability. But these features describe not only the GMG and Roland products. They are equally the yardstick for our customer support and our international distribution activities.

The success of our past achievements does not leave us complacent. We are permanently working on improvements to our products in order to provide our customers in the graphic arts industry with complete solutions for standardizing and simplifying the mockup creation and color management workflow – from the idea to the mockup, proof and finally finished print product.

Dealer's stamp

Roland DG Corporation
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gmg^{color}

Imagine.

Roland[®]

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