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sappi

# The Standard

A Sappi Guide to Designing for Print:

Tips, Techniques and Methods for

Achieving Optimum Printing Results

Varnish & Coatings



# Varnish &

Issue three of **The Standard** examines ways that varnish and coatings can be used as a design technique. Filled with practical and informative tips, print demonstrations, and a glossary of important terms, **The Standard** serves as a bridge between the technical and the creative. It is intended to be used as an educational reference tool, surveying techniques from the simple to the complex. Examples are provided for visual comparison and as food for thought when considering design options. This edition of **The Standard** showcases the versatile finishes of McCoy, a premium coated sheet brought to you by Sappi. McCoy is part of the Sappi portfolio of environmentally responsive papers, which also includes Lustro Offset Environmental (LOE), Opus, Somerset, and Flo.

# Coatings



**Varnish and coatings** do more than protect a printed sheet from smudges, scratches and fingerprints. They give designers the

ability to do on paper what online media cannot – give tangible depth, dimensionality and texture to images and words. Creative use of varnish and coatings has the potential to transform the viewing experience by appealing to multiple senses. You can evoke a mood, convey an attitude, project energy or calm. You can simulate the feel of concrete and silk. You can raise images off the page or give the illusion of multiple layers. You can imitate the look of practically anything, from plastic and metal to leather. You can enhance reality by embedding scent into coatings and by changing color through simple touch.





Over the past five years, innovations in paper chemistry and printing technology have led to the introduction of varnish and coating effects that were not possible before. Most of these techniques can be printed inline on a conventional press. The availability of these amazing capabilities are prompting designers and marketing strategists to rethink the role of print in advertising and marketing communications. Creative professionals are asking themselves what can be done more memorably on paper than on a screen – TV, computer monitor or cell phone? One answer is to take advantage of the tactile quality and design possibilities of varnish and coatings. Print allows designers and corporate communicators to control how their message is seen and to transcend the “one click” longevity of digital communications.



# Performance Comparison

Whether using varnish and coatings for protection or as a design technique, keep in mind that each has advantages and limitations. For example, conventional varnish can be applied from a regular ink unit on press and hold tight registration, but it also dries more slowly than coating and yellows over time. UV offers unbeatable turnaround times and results in most categories, but typically costs more. UV also shows more fingerprinting, but fewer scratches. Pearlescent may cause undesirable color shifts. Gloss coating makes for denser blacks than dull coatings, which may or may not be a good thing. Consider the tradeoffs and what is most important for the job. This Performance Comparison is offered as a general guide when evaluating your choices.

	VARNISH	AQUEOUS COATING	UV COATING
Color Shift	↕ ↕	↕ ↕ ↕	↕ ↕ ↕
Cost	\$ \$ \$	\$ \$	\$ \$ \$ \$ \$
Drying Time	⦿ ⦿ ⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿
Dull Levels	■	■ ■ ■	■ ■ ■ ■
Fingerprinting	Ⓞ Ⓞ	Ⓞ Ⓞ	Ⓞ Ⓞ Ⓞ Ⓞ
Gloss Levels	□	□ □ □	□ □ □ □
Make-Ready Time	⌚ ⌚ ⌚	⌚ ⌚	⌚ ⌚ ⌚
Recyclability	▲ ▲ ▲ ▲	▲ ▲ ▲	▲ ▲ ▲
Scratching	/// /// ///	/// ///	///
Special Effects Available	*	* * *	* * * *
Yellowing	Y Y Y Y Y	Y Y	Y Y
Pertinent categories are compared on Varnish and Coatings demonstration pages			SCALE   1= least 5 = most

# Sustainable and Recyclable

By now, industry professionals understand the importance of specifying FSC® and SFI® certified papers such as McCoy and using vegetable-based inks, but the environmental impact of processes such as varnish and coatings are less familiar. All of the techniques shown in this book are eco-friendly and non-toxic, and done using ingredients that are recyclable. This has long been true for varnish and aqueous coating. It is also true for current ultraviolet (UV) coating. UV coating is cured into a 100% solid by UV lamps, a process that releases no volatile organic compounds (VOC) and is nonflammable. Until recently, UV-coated print materials had to be separated from other materials when recycling, but now they can be recycled along with other mixed waste.

Available in gloss, satin and dull finishes, varnish is essentially ink without pigment, so it can be run using a regular unit on the press and hold exact dot-for-dot registration. A gloss varnish deepens colors on a printed piece, while satin and dull finishes reduce contrast. For overall protection and sheen, varnish is flooded onto the entire sheet. One drawback of varnish is that it tends to yellow over time, becoming most evident in unprinted areas. Printers also have to use a spray powder to keep printed sheets from sticking together while the varnish is still wet. This may leave a faint residue. Still, varnish offers opportunities to elicit a variety of dramatic design effects at a relatively inexpensive cost.



Inline gloss varnish    Inline dull varnish + drytrapped spot pearlescent varnish on eyelid



Varnish

Inline dull varnish + drytrapped dot-for-dot gloss varnish on lip highlights    Inline tinted satin varnish / Conventional four-color process



Inline spot  
dull varnish  
on face &  
background

Conventional  
four-color  
process

Drytrapped spot  
gloss varnish on  
hat & brim

Brimmed Hat

A drytrapped  
gloss varnish was  
used to heighten  
contrast and  
“raise” the hat  
away from the  
woman’s face.

Conventional  
four-color  
process

Drytrapped overall  
gold-tinted gloss  
varnish on shoe &  
background

Drytrapped  
dot-for-dot black  
touchplate in  
midtone &  
shadows of shoe

# Gold Shoe

The soft focus of this photograph gives this high heel shoe a luminous glow. The use of an overall gold-tinted varnish accentuated this quality and evoked a mood of sensual elegance.

Glitter Belt

Conventional  
four-color  
process

Inline spot  
satin varnish  
on black  
shadows

Inline spot  
gloss varnish  
on belt

Drytrapped  
spot gloss  
varnish on  
belt buckle &  
glitter

Inline dull  
varnish on  
background



Two hits of gloss varnish were used to simulate the sparkle of glitter and chrome. An inline pass covered the entire belt, then a drytrap of gloss varnish hit only the buckle and bits of glitter on the strap.

To bring out a hard smooth shiny look, just the patent leather portion of this shoe received a second hit of spot gloss varnish.



Patent Shoe

Conventional  
four-color  
process

Drytrapped  
spot gloss  
varnish on  
patent leather

Inline overall  
gloss varnish  
on background  
& shoe



Conventional  
four-color  
process

Inline spot  
dull varnish  
on colored  
ribbons

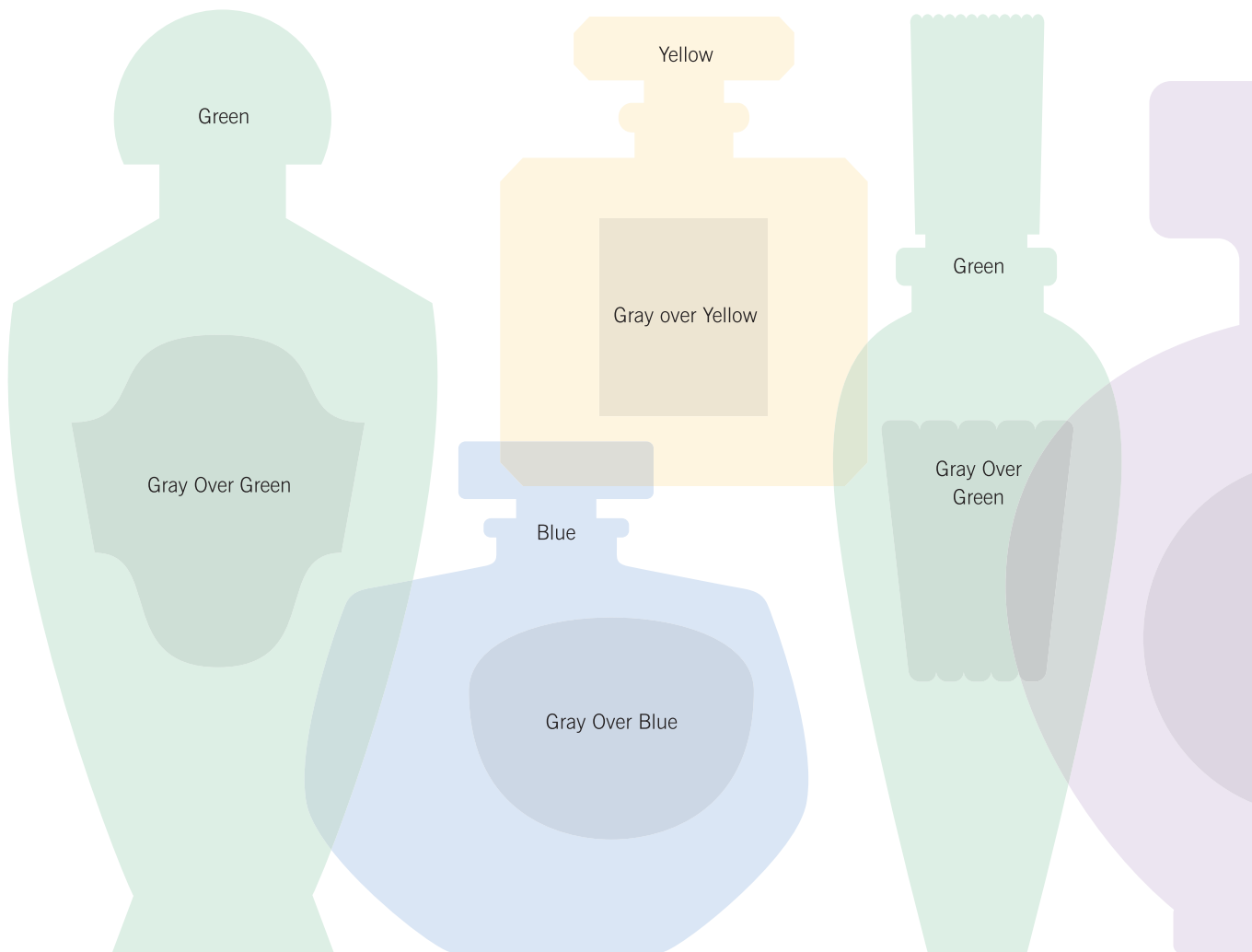
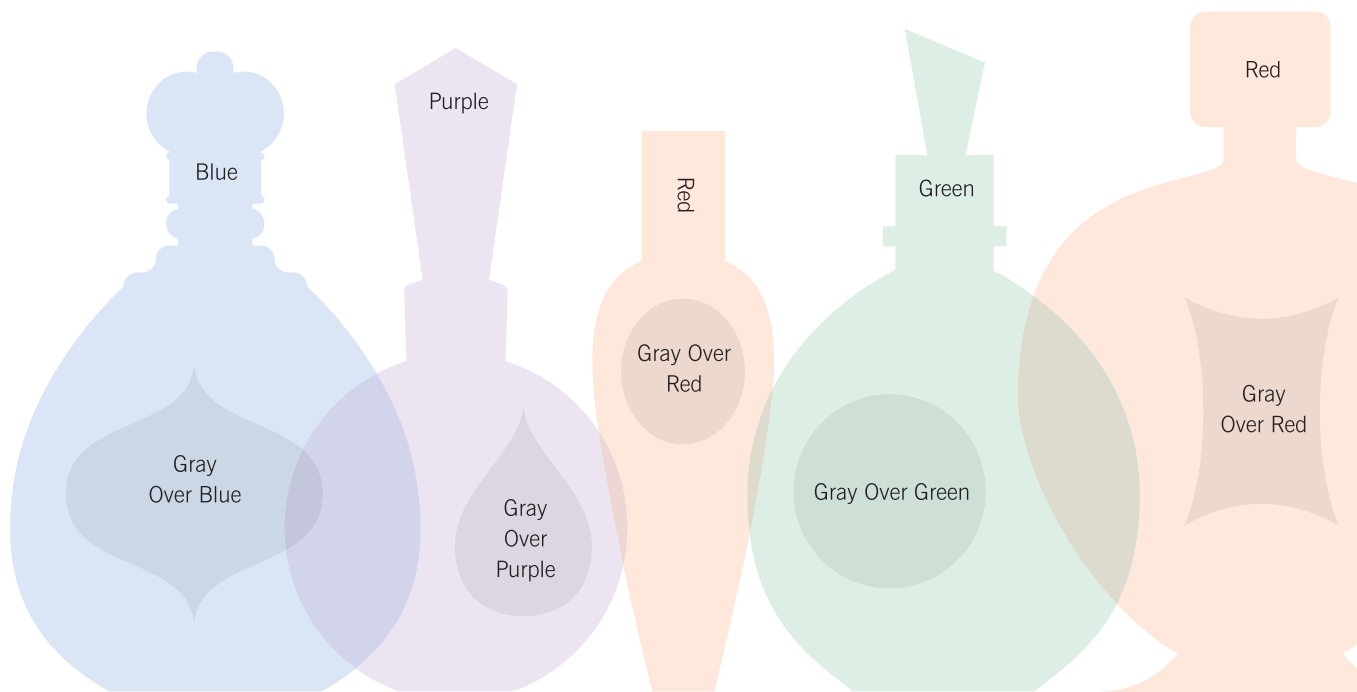
Inline gold  
halftone  
touchplate on  
metallic bands

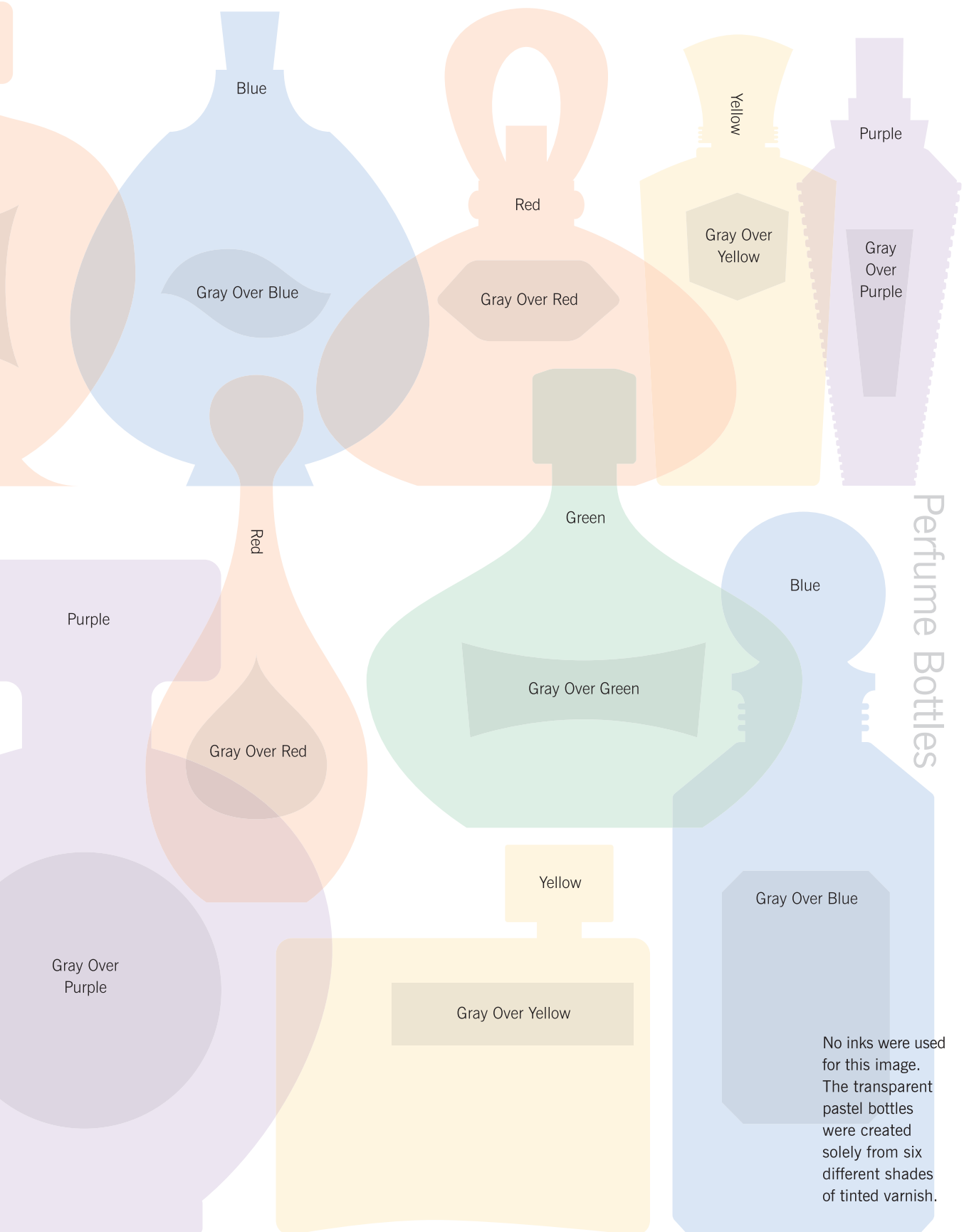
Inline spot  
gloss varnish  
on gold

Bracelets

An impression  
of two different  
materials –  
ribbons and  
gold – is  
suggested by  
alternating  
dull and gloss  
varnish.

Inline spot tinted satin varnishes





No inks were used for this image. The transparent pastel bottles were created solely from six different shades of tinted varnish.



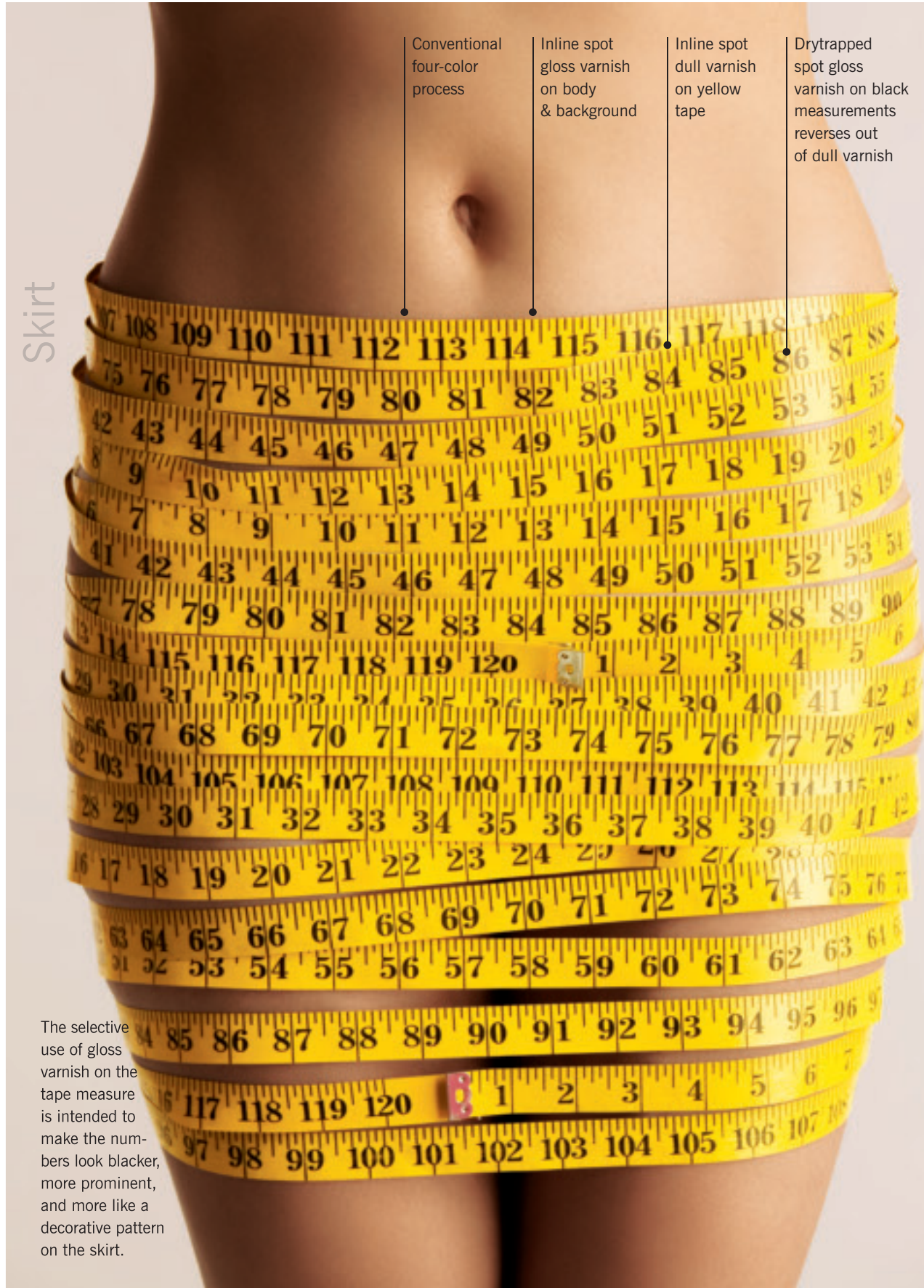
Drytrapped tinted gloss varnish pattern

Conventional four-color process

Inline spot satin varnish on four-color process

Fish Dress

Varnish can be used to subtly impart a secondary story. In this case, a tinted gloss varnish was used to create a faint wave pattern over the model in a filleted fish dress.



Skirt

Conventional  
four-color  
process

Inline spot  
gloss varnish  
on body  
& background

Inline spot  
dull varnish  
on yellow  
tape

Drytrapped  
spot gloss  
varnish on black  
measurements  
reverses out  
of dull varnish

The selective use of gloss varnish on the tape measure is intended to make the numbers look blacker, more prominent, and more like a decorative pattern on the skirt.

Inline spot dull  
varnish in  
background

Inline  
spot satin  
varnish  
on dress  
stripes

Matte black,  
process black  
& match silver  
tritone

Running spots of  
dull and satin  
varnish inline  
helped to make  
this X-ray of a  
striped dress look  
more skeletal.

Striped Dress





Drytrapped gloss UV coating

Drytrapped sandpaper UV coating

# Coatings

Dull varnish with strike-through gloss aqueous coating on leaf veins

Satin aqueous coating / Conventional four-color process

Soft-touch coating uses a specially formulated polymer base that creates an ultra-fine textured surface that feels like suede, which is perfect for replicating the feel of a tarantula.

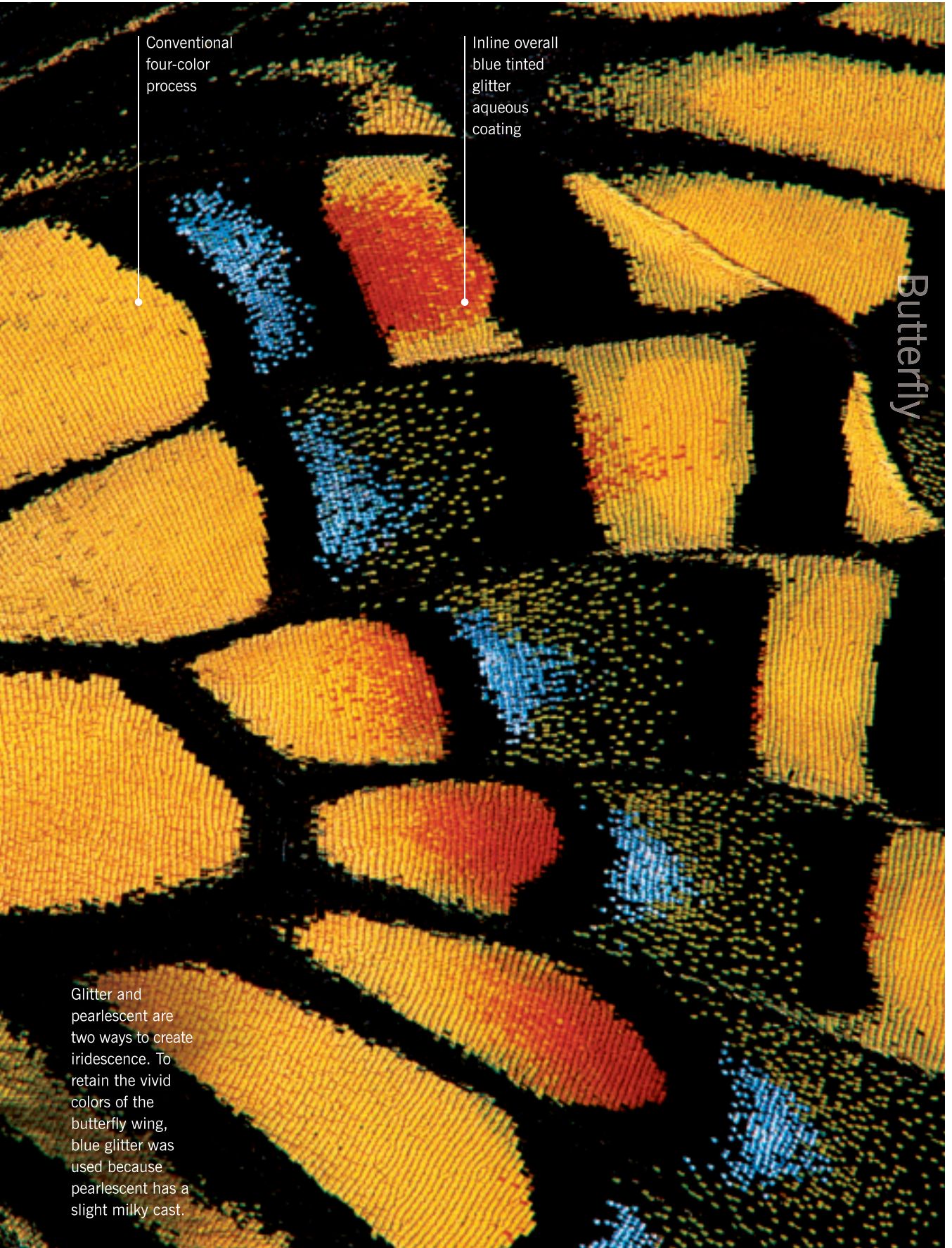


Tarantula

Conventional four-color process

Match gray halftone shadow

Inline spot soft-touch aqueous coating on tarantula



Conventional  
four-color  
process

Inline overall  
blue tinted  
glitter  
aqueous  
coating

Butterfly

Glitter and pearlescent are two ways to create iridescence. To retain the vivid colors of the butterfly wing, blue glitter was used because pearlescent has a slight milky cast.

Metal Chair



A gloss UV coating was drytrapped over liquid silver ink to make the chair's wire structure look more shiny and metallic.



The hard shiny feel of acrylic and rough texture of concrete are created by combining coating techniques. Contrasting textures also makes the chair seem more dimensional.

Acrylic Chair

UV four-color process

Drytrapped spot sandpaper UV coating on concrete

Inline gloss UV coating on chair



Plastic Cutlery

UV four-color process

Drytrapped spot satin UV coating on cutlery

Inline spot dull UV coating in shadows

The subtle contrast between dull and satin UV coatings captures the softer sheen of plastic cutlery.

Alligator

Spot dull  
UV varnish on  
alligator

Spot gloss UV  
varnish on tongue

Spot gloss UV  
coating on eye



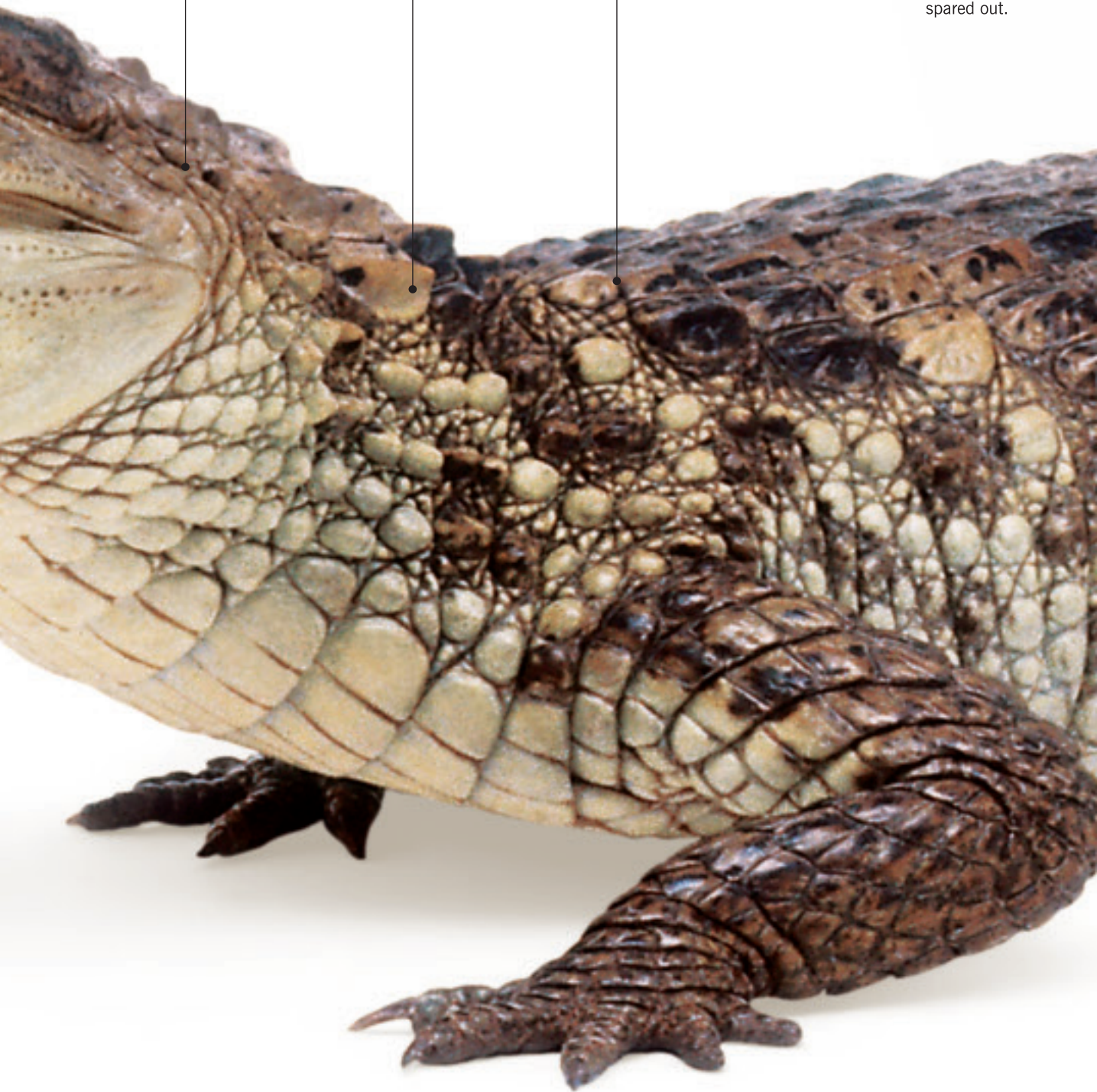
This spread shows four different ways to use UV coatings to make this alligator look more realistic. Above, to heighten contrast, the eye has a UV gloss coating, the tongue a UV gloss varnish and the skin a UV dull varnish.

UV four-color  
process  
throughout

Spot sandpaper  
UV coating on  
alligator scales

Spot gloss  
UV varnish on  
alligator creases

A sandpaper  
UV coating  
creates a uniform  
roughness. In  
this case, it was  
applied only to  
the alligator's  
scales, with the  
creases between  
scales spared out.





Spot textured  
UV coating  
on alligator

Match gray  
halftone shadow  
throughout

An anilox roller  
with unevenly  
dimpled micro-  
cells is used to  
apply UV coating  
for a textured  
look.



UV  
four-color  
process

Drytrapped  
overall gloss  
UV coating

Cooking Utensils

In comparison to the plastic cutlery on the facing page, the goal here was to make the entire image shine by applying an overall gloss UV coating to the sheet.



Football

Drytrapped spot raised satin UV coating on pigskin pattern

UV four-color process

Inline spot soft-touch UV coating on leather ties

Inline spot dull UV varnish on leather background & holes for leather ties

The tactile feel of a football is evoked with a soft-touch UV coating for the suede like lacing and a raised satin UV coating for the pebbly grain of the pigskin.

Conventional  
four-color  
process

Drytrapped  
spot soft-touch  
aqueous coating  
on chess pieces

Inline spot  
dull aqueous  
coating on  
background &  
chessboard

Chess

The chess pieces are visually lifted away from the board with an application of soft-touch aqueous coating, which gives the pieces a slight tactile quality.



Cinnamon Bun



UV  
four-color  
process

Inline spot  
scented UV  
coating on  
cinnamon bun

Inline spot  
dull UV varnish  
on napkin

RUB CINNAMON BUN

Presenting an image that is so tantalizing that readers can smell it is made possible by encapsulating scented cells in UV coating. In this case, rubbing the coating releases the scent of cinnamon.

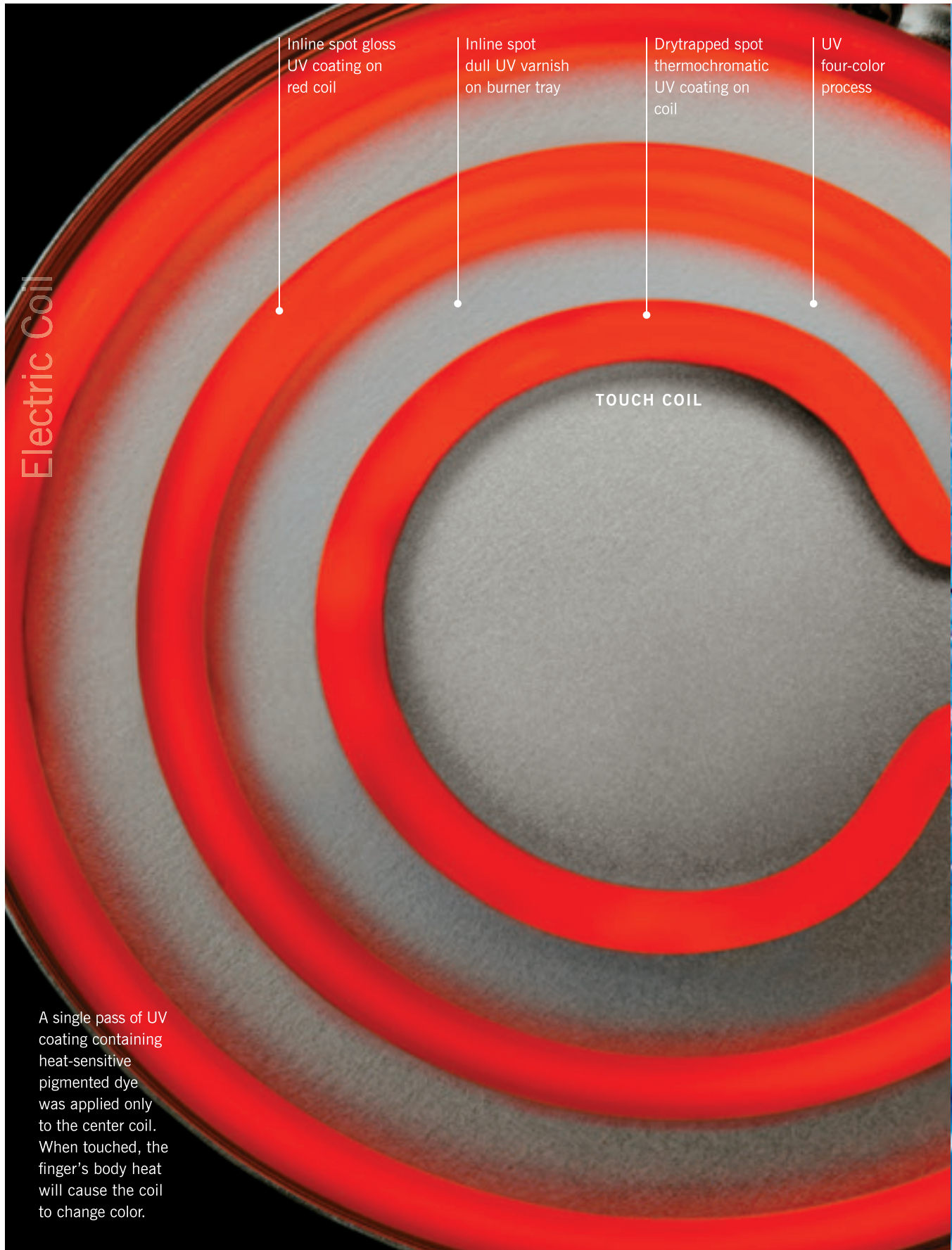


A strike-through technique combines dull varnish and gloss coating, causing the fruit to look glazed and the custard to appear more matte.

Fruit Tart

UV four-color process

Dull conventional varnish with strike-through gloss UV coating on fruit



Electric Coil

Inline spot gloss  
UV coating on  
red coil

Inline spot  
dull UV varnish  
on burner tray

Drytrapped spot  
thermochromatic  
UV coating on  
coil

UV  
four-color  
process

TOUCH COIL

A single pass of UV coating containing heat-sensitive pigmented dye was applied only to the center coil. When touched, the finger's body heat will cause the coil to change color.

To make this snowflake evoke a dimensional, icy look, a spot raised gloss UV coating was applied over the snowflake and contrasted against a background of dull UV varnish.

Snowflake

UV  
four-color  
process

Inline spot  
raised gloss  
UV coating  
on snowflake

Inline spot  
dull UV  
varnish on ice  
background

This hairbrush was made more intriguing by applying a pearlescent aqueous coating on the tips of the bristle and a gloss varnish on the shafts, with the amount of varnish receding with the diffusion of the photograph.

Conventional four-color process

Inline spot dull conventional varnish in brush head

Inline spot pearlescent aqueous coating on bristle heads

Inline spot gloss conventional varnish on bristle shaft

Hairbrush

This porcupine photograph was made more tactile by using raised UV coating on the quills and a tinted gloss UV varnish for the reflection.

Porcupine

Inline gray tinted gloss UV varnish halftone reflection

UV four-color process

Inline spot raised UV coating on porcupine

This guide is designed to give you a direct comparison of how different varnish and coatings look on the three paper finishes of McCoy. Each combination causes subtle or sometimes very pronounced shifts in overall colors and intensity of shadows and highlights. For instance, running a gloss varnish over McCoy Gloss results in a different effect than, say, a dull varnish on McCoy Matte. The right choice depends on the priorities of your particular job – the style and subject of the imagery, the kind of mood you are trying to create, and the way you want the paper to feel when readers hold it in their hands. It is important to tell printers your paper choice early on, so they can take that into account when beginning prepress work.

**Dull Varnish**  
& inline  
conventional  
four-color  
process



**No Varnish**  
& inline  
conventional  
four-color  
process



**Gloss Varnish**  
& inline  
conventional  
four-color  
process



**Dull Aqueous Coating**  
& inline  
conventional  
four-color  
process



**No Coating**  
& inline  
conventional  
four-color  
process



**Gloss Aqueous Coating**  
& inline  
conventional  
four-color  
process



**Dull Varnish**  
& inline  
conventional  
four-color  
process

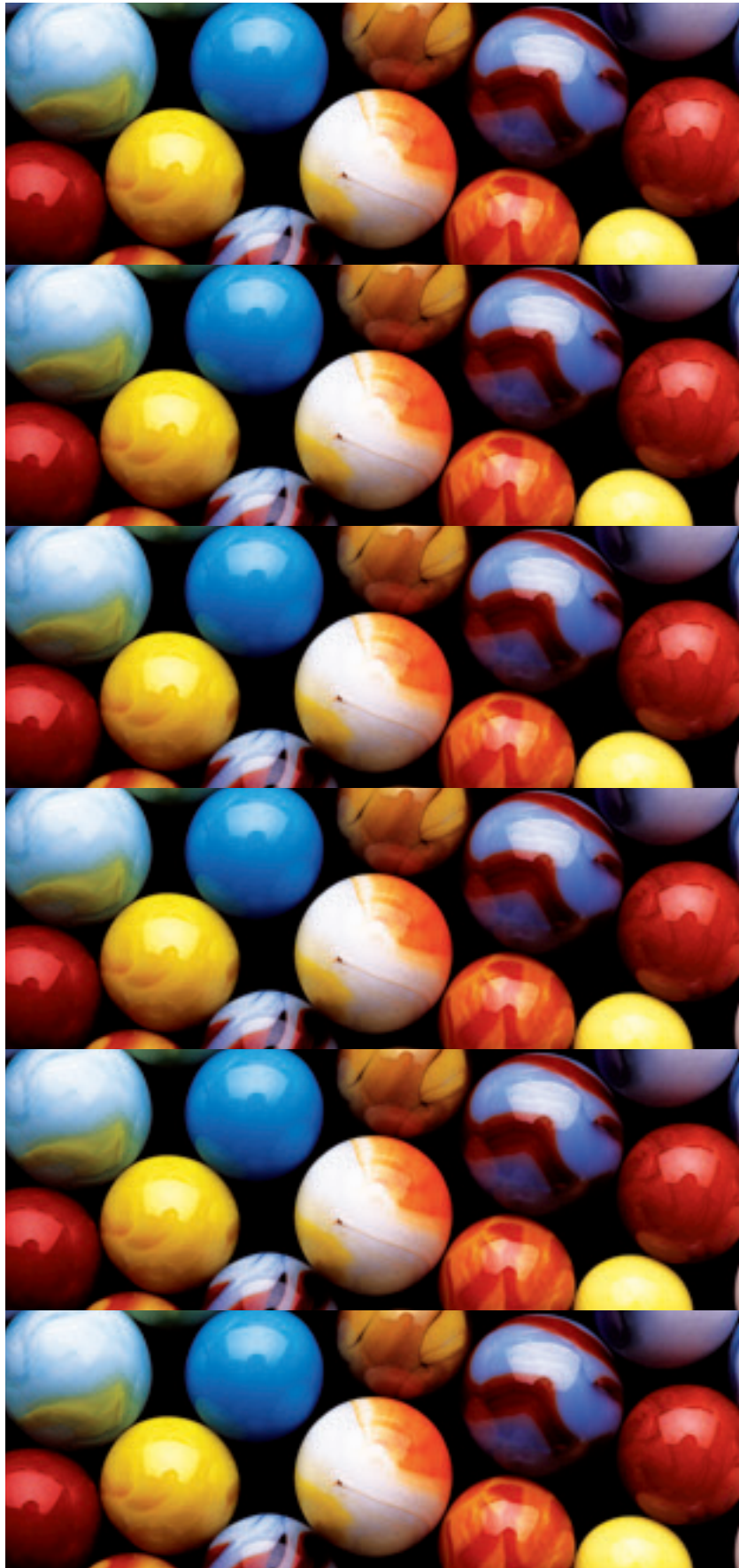
**No Varnish**  
& inline  
conventional  
four-color  
process

**Gloss Varnish**  
& inline  
conventional  
four-color  
process

**Dull Aqueous  
Coating**  
& inline  
conventional  
four-color  
process

**No Coating**  
& inline  
conventional  
four-color  
process

**Gloss Aqueous  
Coating**  
& inline  
conventional  
four-color  
process





**Dull Varnish**  
& inline  
conventional  
four-color  
process



**No Varnish**  
& inline  
conventional  
four-color  
process



**Gloss Varnish**  
& inline  
conventional  
four-color  
process



**Dull Aqueous  
Coating**  
& inline  
conventional  
four-color  
process



**No Coating**  
& inline  
conventional  
four-color  
process



**Gloss Aqueous  
Coating**  
& inline  
conventional  
four-color  
process



**Dull UV Coating**  
& inline  
UV four-color  
process



**No Coating**  
& inline  
UV four-color  
process



**Gloss UV Coating**  
& inline  
UV four-color  
process



**Dull UV Coating**  
& inline  
UV black



**No Coating**  
& inline  
UV black

**Gloss UV Coating**  
& inline  
UV black



**Dull UV Coating**  
& inline  
UV four-color  
process



**No Coating**  
& inline  
UV four-color  
process



**Gloss UV Coating**  
& inline  
UV four-color  
process



**Dull UV Coating**  
& inline  
UV black



**No Coating**  
& inline  
UV black

**Gloss UV Coating**  
& inline  
UV black

**Dull UV Coating**  
& inline  
UV four-color  
process



**No Coating**  
& inline  
UV four-color  
process



**Gloss UV Coating**  
& inline  
UV four-color  
process



**Dull UV Coating**  
& inline  
UV black



**No Coating**  
& inline  
UV black

**Gloss UV Coating**  
& inline  
UV black



# Glossary of Varnish & Coating Terms

## Anilox coating process

A hard roller made of steel or aluminum coated with industrial ceramic is etched on the surface with a predetermined number of cells that act as carriers of exact quantities of coating to the printing plate. During the printing process, the anilox roller is immersed in coating, then a sharp “doctor blade” scrapes excess coating off the surface, leaving an exactly measured amount in each cell. The roller then makes contact with the flexographic printing plate, which transfers the coating onto paper. Anilox is used for special UV and aqueous coating applications, including pearlescent, metallics and spot coating.

## Aqueous coating

Aqueous is a fast-drying, water-based protective coating that can be applied inline on press from a coating tower. It is particularly noted for providing excellent smudge resistance. It also does not yellow with age. Aqueous coating comes in gloss, satin, dull and many custom finishes (pearlescent, metallics, touch coatings). It can be flooded onto the entire sheet or spot coated.

## BCM per Square Inch

BCM stands for “billion cubic microns,” which is the volume measurement for each pocket, or cell, on an anilox roller. BCM expresses the amount of ink or solids that each cell holds. In commercial printing, BCMs per square inch typically range from 9 to 40 BCMs.

## Coatings

Press coatings (aqueous and UV) are applied to protect the printed sheet from fingerprinting, scratches and smudges as well as exposure to moisture and temperature extremes. They are also better than varnish at protecting against long-term color fading. Choice of coating finish can improve the look of the printed piece and can be used as a technique to achieve different visual effects.

## Color Shift

In four-color printing, image colors change to some degree depending on ink densities, dot gain, paper choice and coating finish. Generally speaking, a gloss-finish coating tends to result in more saturated colors, particularly intensifying blacks and darker shades. Satin coating tends to be the most color neutral. Dull coating tends to minimize the contrast between darks and lights, resulting in a softer look.

## Cyrel® plate

This is the photopolymer plate used in the flexographic printing process. It develops thermally, without any need for solvents or drying time, and is suitable for fine screen, line and solids work. Spot aqueous and UV coatings require the use of a Cyrel plate or peelable coating blanket.

## Drytrap

Printing over dry ink, as opposed to wet trap. This requires the printed piece to go through the press a second time. It offers more creative flexibility and greater ink/coating holdout, but costs more and takes more time than inline processes.

## Dull finish

Dull finish varnish and coatings do not add sheen to the printed sheet. Their non-glare surface is known for enhancing readability.

## Flood coating

This process involves applying a finishing coating (aqueous, UV or varnish) to an entire press sheet as one flat coating.

## Gloss finish

Available in varnish and aqueous and UV coatings, gloss has a high reflective finish that gives the sheet a shiny appearance.

### **Inline**

This includes any process done on a printed piece while it is on the press. The ability to do everything in one operation saves time and money.

### **Offline**

This is a process done after a printed piece has come off press.

### **Overprinting**

Also called surprinting, this is a technique where one ink, varnish or coating is printed directly over another, without knocking out the image behind it.

### **Pearlescent finish**

This specialty pigment, made from crushed mother-of-pearl particles, is used to add iridescent highlight and depth to defined printed areas.

### **Raised UV Coating**

An anilox cylinder is required to create a raised surface. The deeper the BCM cell depth on the anilox cylinder, the higher the raised surface.

### **Reticulation effect**

A wrinkled look created by increasing the viscosity of the coating to a point where it cannot be spread evenly onto the paper. The surface semi-rejects the coating film, causing it to bead and leaving a snakeskin look.

### **Sandpaper finish**

Grainy particles are suspended in coating to create a tactile sandpaper texture.

### **Satin finish**

This smooth finish is not as shiny as gloss finish and not as matte as dull finish.

### **Scented finish**

Scents microencapsulated in pigments are added to coating and applied to the sheet. When rubbed the microcapsules break, releasing the fragrance.

### **Soft-touch coating**

This special-effects coating imparts a unique rubbery, leather-like feel with a matte appearance. It can be applied inline through the coating tower and does not require any secondary or offline treatment.

### **Spot coating**

This is the use of coating only on specifically designated areas on a sheet.

### **Strike through (Also known as Contrast Varnish)**

This is a method of simulating a perfect-image trap by taking advantage of a chemical reaction between varnish and coatings. A dull varnish is first put down in the areas intended to stay matte, then an overall flood gloss coating is applied. The gloss coating is "neutralized" in the varnished areas, which remain dull while the rest of the image goes glossy.

### **Textured finish**

This coating creates a surface that looks like it was textured by a ball-peen hammer. Also known as hammertone finish.

### **Thermochromatic coating**

This is a reaction caused by dyes that are heat sensitive. The heat from a finger will cause the color to change.

### **UV (Ultraviolet) coating**

UV coating is a clear liquid coating that can be cured instantly with an ultraviolet light, leaving a gloss, satin or dull finish. Since UV coating is cured by light not heat, the application process emits no solvents into the atmosphere.

### **Varnish**

A liquid coating applied to a sheet via an ink unit, either inline or offline. Varnishes can be gloss, satin or dull. They can also be tinted with pigment for interesting effects. Although varnish protects the sheet from scuffing, it tends to yellow over time.

### **Wet-trap**

When varnish or ink is printed over wet ink.

# Specifying the Right Paper

Paper choice plays a critical role when specifying varnish and coatings, which first and foremost seal a sheet against scratches and smudges and enhance ink holdout. For design techniques, however, it goes without saying that rough and porous paper surfaces, as well as lighter weight sheets, limit the kinds of varnish and coatings processes possible. Coated papers are better suited for special techniques than uncoated stock, and premium coated papers such as McCoy offer the greatest opportunity to explore the full range of visual effects with confidence. With Sappi papers, designers have the assurance of excellent surface uniformity and smoothness, and a choice of finishes that can be mixed and matched with different varnish and coating finishes and specialty options. The result is a level of visual excitement that creates a new genre of print communications.



# Sappi Portfolio of Papers

At Sappi, we try to give you choices to satisfy every design need, from high-profile marketing pieces to postage-friendly direct mailers to cost-driven, no-frill jobs. In addition to offering you a selection of grades, finishes and weights, we make sustainability a part of everything we do, as evident by the SFI<sup>®</sup>, FSC<sup>®</sup> and Green-e<sup>®</sup> certifications and post-consumer waste content shown on the chart. You can also count on us for personalized service. Swatchbooks, paper dummies and printed samples for any Sappi brand are available from Sappi representatives and your local paper merchant. A call to 1.877.Sappi.Help will connect you to our technical experts for answers to print-related questions. Or you can log onto [sappi.com](http://sappi.com) for more information.

PRODUCT	FINISH	BASE WEIGHT RANGE	PCW	CERTIFICATION
<b>PREMIUM</b>				
McCoy	Gloss, Silk, Matte	80lb T–130lb C	♻️ 10%	SFI <sup>®</sup> , FSC <sup>®</sup> and Green-e <sup>®</sup> certified
<b>BUZZ</b>				
Lustro (LOE)	Gloss, Dull, Dull Cream	80lb T–120lb C	♻️ 30% <sup>1</sup>	SFI <sup>®</sup> , FSC <sup>®</sup> and Green-e <sup>®</sup> certified
<b>PERFORMANCE</b>				
Opus	Gloss, Dull, Matte, Satin <sup>2</sup>	60lb T–120lb C	♻️ 10% <sup>3</sup>	SFI <sup>®</sup> , FSC <sup>®</sup> and Green-e <sup>®</sup> <sup>4</sup> certified
Somerset	Gloss, Satin, GFG, Matte	45lb T–80lb/9pt C	Upon request	SFI <sup>®</sup> , FSC <sup>®</sup> <sup>5</sup>
Aero	Gloss	90lb T–83lb/9pt C	Upon request	SFI <sup>®</sup> , FSC <sup>®</sup>
Magno	Gloss (Star), Dull	60lb T–129lb C	N/A	FSC <sup>®</sup> <sup>5</sup>
HannoArt	Gloss, Silk	60lb T–129lb C	N/A	FSC <sup>®</sup> <sup>5</sup>
<b>ECONOMY</b>				
Flo	Gloss, Dull, Matte	40lb T–100lb C	♻️ 10% <sup>6</sup>	SFI <sup>®</sup> , FSC <sup>®</sup> <sup>7</sup>

Products are not available in all finishes and basis weights. Please consult with your sales or customer service representative.

1 100lb and 120lb cover weights contain a minimum of 20% PCW.

2 Available in web rolls only.

3 Opus sheets only. Inquire about web recycled content (up to 30% PCW available).

4 Opus sheets and Opus web with 30% PCW is Green-e<sup>®</sup> certified.

5 Limited quantity available. Consult with your Sappi representative.

6 Flo web with 10% PCW available upon request.

7 FSC<sup>®</sup> Mixed Sources: McCoy, LOE, Opus, Aero and Flo sheets only

# Production Notes & Credits

## Design

Pentagram

## Text

Delphine Hirasuna

## Printing

Five, six and eight unit 40" conventional presses with anilox coating systems.

Six and eight unit 40" UV presses with anilox coating systems. All images are 175-line screen.

## Binding

Wire-O



## Cover

Paper: McCoy Silk Cover 120 lb/325 gsm  
UV four-color process + UV match blue + spot dull UV coating in background, black masthead box and ghosted logo box. Satin UV varnish on ghosted four-color masthead box. Spot gloss UV varnish on masthead type, numeral three and logo. Drytrapped spot raised gloss UV coating on water drops. Raised coating applied with 20 BCM roller.



## Inside Covers

Two hits solid UV black + reticulating dull UV varnish with strike-through gloss UV coating. Drytrapped spot custom blend satin and spot dull UV varnishes. Selected type prints 60% black over solid black, or reverses out of a single hit of solid black.

## Page 1

Paper: McCoy Silk Text 100 lb/148 gsm  
Conventional black + spot match gray tinted gloss varnish.



## Pages 2-3

Paper: McCoy Silk Text 100 lb/148 gsm  
Photography: Terry Heffernan  
Conventional four-color process + match gray halftone shadow + spot gloss, satin and dull varnishes on four-color.

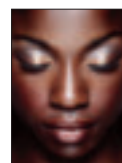
## Pages 4-5

Paper: McCoy Silk Text 100 lb/148 gsm  
Conventional black + match red.



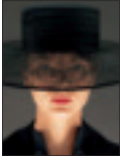
## Page 6

Paper: McCoy Silk Text 100 lb/148 gsm  
Two hits conventional black + dull varnish with strike-through gloss aqueous coating.



## Page 7 Varnish

Paper: McCoy Gloss Text 100 lb/148 gsm  
Conventional four-color process. Upper left: gloss varnish. Upper right: dull varnish + drytrapped spot pearlescent varnish on eyelid. Lower left: dull varnish + spot dot-for-dot gloss varnish on lip highlights. Lower right: overall match copper tinted satin varnish.



**Page 8 Brimmed Hat**

Paper: McCoy Gloss Text 100 lb/148 gsm  
Conventional four-color process + spot dull varnish on face & background.  
Drytrapped spot gloss varnish on hat and brim. Face & background under brim are spared out of gloss varnish.



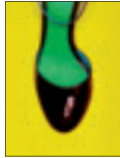
**Page 9 Gold Shoe**

Paper: McCoy Silk Text 100 lb/148 gsm  
Conventional four-color process. Overall drytrapped gold-tinted varnish. Drytrapped dot-for-dot black touchplate in midtone and shadows of shoe.



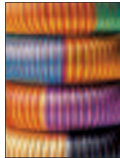
**Page 10 Glitter Belt**

Paper: McCoy Silk Text 100 lb/148 gsm  
Photography: Clayton James Cubitt  
Conventional four-color process + spot gloss, satin and dull varnishes. Drytrapped spot gloss varnish on belt buckle and glitter bits.



**Page 11 Patent Shoe**

Paper: McCoy Gloss Text 100 lb/148 gsm  
Photography: Clayton James Cubitt  
Conventional four-color process + overall gloss varnish. Drytrapped spot gloss varnish on patent leather.



**Page 12 Bracelets**

Paper: McCoy Gloss Text 100 lb/148 gsm  
Photography: Terry Heffernan  
Conventional four-color process + match gold touchplate + spot gloss and dull varnishes.



**Pages 13-14 Perfume Bottles**

Paper: McCoy Silk Text 100 lb/148 gsm  
Illustration: Paul Wearing  
Conventional black + spot yellow, red, green, blue, purple and gray tinted satin varnishes.



**Page 15 Fish Dress**

Paper: McCoy Silk Text 100 lb/148 gsm  
Conventional four-color process + spot satin varnish. Drytrapped spot match blue tinted gloss varnish wave pattern.



**Page 16 Skirt**

Paper: McCoy Silk Text 100 lb/148 gsm  
Conventional four-color process + spot gloss and dull varnishes. Drytrapped spot gloss varnish on tape measurements and metal tape ends.



**Page 17 Striped Dress**

Paper: McCoy Gloss Text 100 lb/148 gsm  
Conventional process black, matte black & match silver tritone + spot satin and dull varnishes.



**Page 18**

Paper: McCoy Gloss Text 100 lb/148 gsm  
Two hits conventional match yellow + dull varnish with strike-through gloss aqueous coating.



**Page 19 Coatings**

Paper: McCoy Silk Text 100 lb/148 gsm  
Conventional four-color process.  
Upper left: drytrapped gloss UV coating. Coating applied with 10 BCM roller. Upper right: drytrapped sandpaper UV coating. Coating applied with 30 BCM roller. Lower left: dull varnish with strike-through gloss aqueous coating. Lower right: satin aqueous coating.



### Page 20 Tarantula

Paper: McCoy Silk Text 100 lb/148 gsm  
Conventional four-color process + match gray halftone shadow + spot soft-touch aqueous coating.



### Page 21 Butterfly

Paper: McCoy Gloss Text 100 lb/148 gsm  
Conventional four-color process + overall blue glitter aqueous coating. Coating applied with 12 BCM roller.



### Page 22 Metal Chair

Paper: McCoy Gloss Text 100 lb/148 gsm  
Photography: Terry Heffernan  
First pass: liquid silver ink. Drytrapped two hits UV process black + spot gloss UV coating.



### Page 23 Acrylic Chair

Paper: McCoy Silk Cover 80 lb/216 gsm  
Photography: Laurie Frankel  
UV four-color process + spot gloss UV coating. Drytrapped spot sandpaper UV coating on concrete. Sandpaper coating applied with 30 BCM roller.



### Page 24 Plastic Cutlery

Paper: McCoy Silk Cover 80 lb/216 gsm  
UV four-color process + spot dull UV coating. Drytrapped spot satin UV coating.



### Pages 25-28 Alligator

Paper: McCoy Silk Cover 80 lb/216 gsm  
UV four-color process + UV match gray halftone shadow. Page 25: spot gloss and dull UV varnishes + spot gloss UV coating. Coating applied with 20 BCM roller. Page 26: spot sandpaper UV coating on scales + spot gloss varnish on creases. Sandpaper coating applied with 20 BCM roller. Page 27: reticulating spot dull conventional varnish and gloss UV coating. Coating applied with 20 BCM roller. Page 28: spot textured UV coating. Textured coating applied with 40 BCM roller.



### Page 29 Cooking Utensils

Paper: McCoy Silk Cover 80 lb/216 gsm  
UV four-color process. Drytrapped overall gloss UV coating. Coating applied with 12 BCM roller.



### Page 30 Football

Paper: McCoy Silk Cover 80 lb/216 gsm  
UV four-color process + spot dull UV varnish + spot soft-touch UV coating on leather ties. Soft-touch coating applied with 20 BCM roller. Drytrapped spot raised satin UV coating on pigskin. Raised coating applied with 40 BCM roller.



### Page 31 Chess

Paper: McCoy Gloss Text 100 lb/148 gsm  
Conventional four-color process + spot dull aqueous coating. Drytrapped spot soft-touch aqueous coating on chess pieces. Soft-touch coating applied with 20 BCM roller.



### Page 32 Cinnamon Bun

Paper: McCoy Gloss Text 100 lb/148 gsm  
UV four-color process + spot dull UV varnish + spot cinnamon scented UV coating. Scented coating applied with 20 BCM roller.



### Page 33 Fruit Tart

Paper: McCoy Silk Text 100 lb/148 gsm  
UV four-color process + dull conventional varnish with strike-through gloss UV coating on fruit.



**Page 34 Electric Coil**

Paper: McCoy Silk Text 100 lb/148 gsm  
Photography: John Blaustein  
UV four-color process + spot dull  
UV varnish + spot gloss UV coating on red coil. Drytrapped spot thermochromatic UV coating on center coil. Thermochromatic coating applied with 40 BCM roller.



**Page 35 Snowflake**

Paper: McCoy Gloss Text 100 lb/148 gsm  
UV four-color process + spot modified dull  
UV varnish + spot raised gloss UV coating on snowflake. Raised coating applied with 40 BCM roller.



**Page 36 Hairbrush**

Paper: McCoy Gloss Text 100 lb/148 gsm  
Conventional four-color process + spot gloss and dull varnishes + spot pearlescent aqueous coating on bristle heads. Varnishes and aqueous coating are dot-for-dot as they recede into the background. Aqueous coating applied with 20 BCM roller.



**Page 37 Porcupine**

Paper: McCoy Silk Text 100 lb/148 gsm  
UV four-color process + match gray tinted gloss UV varnish halftone reflection + spot raised UV coating. Raised coating applied with 30 BCM roller.



**Page 38 Paper/Finish Comparison**

Paper: McCoy Silk Text 100 lb/148 gsm  
Two hits match silver + dull varnish with strike-through gloss UV coating.



**Pages 39-44 Varnish & Aqueous Comparisons**

Paper: McCoy Matte, Silk and Gloss Text 100 lb/148 gsm  
Conventional four-color process + spot dull and gloss varnishes + spot dull and gloss aqueous coatings.



**Pages 45-49 UV Comparison**

Paper: McCoy Matte, Silk and Gloss Text 100 lb/148 gsm  
UV four-color process + UV match black + spot dull and gloss UV coatings.

**Page 50**

Paper: McCoy Gloss Text 100 lb/148 gsm  
Spot match gray tinted conventional varnish.

**Pages 51-58**

Paper: McCoy Silk Text 100 lb/148 gsm  
UV four-color process + UV match red.  
Spot gloss UV varnish on four-color.

Match red type on all demonstration pages.

Conventional or UV satin varnish on all four-color outside the designated demonstration areas.

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