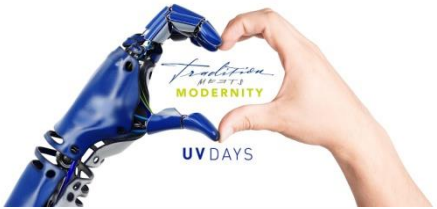
Food compliance & decoration for premium packages

Nürtingen, May 13-16 2019



PrintCity-Alliance – Who are we?

- PrintCity is a **strategic alliance** recognised as the “connection of competence” across the entire printing and packaging value chain, promoting the **value of print and packaging**.
- We deliver value to customers by gathering and **sharing leading global** know-how within a network.
- We deliver **knowledge** via seminars, trade fairs, project studies, tutorials, publications and electronic platforms.

- We do this since 20 years …

Your hosts

IST

KURZ

MetsäBoard

WEILBURGER

PrintCity

Our topics today

Safe Food
Secundary Packaging
for Sweets

3D Effects
Tactile and virtual effects

Nature Cosmetics
Presentation and
gift box

PrintCity

Food safe Candy Box

epple DRUCKFARBEN · HEIDELBERG · IST · KURZ · MERCK · MetsäBoard · WEILBURGER

PACKAGING · buchner STANZFORMEN · CITO · FlintGroup · hhm · leupold faltschachteln · wekaform Stanzwerkzeuge · ZELLER+GMELIN

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Packaging design by Metsä Board for Candy Box

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Packaging analysis & design

MetsäBoard

- We help you to ensure that your packaging always performs to the best possible level
  - from material, design, cost and sustainability perspectives
- Our design team is truly global, ensuring that packaging and designs match consumer tastes and capitalise on new trends

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Design and board

MetsäBoard

Unique shape and extensive print enhancement

This folding box is destined to serve as secondary packaging for foil-wrapped candy.

It was produced in line with European food regulations and is characterised by its unique shape, practical opening and closing mechanism, sustainable materials and eye-catching print enhancements

MetsäBoard Prime FBB 270 gsm

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Candy Box 1.1 „Frost“

KURZ

Food packaging in memorable shape, optics and functionality

Cold transfer application of KURZ LIGHT LINE® white series „**Frost**“

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LIGHT LINE
White Series „Frost“

KURZ

LIGHT LINE® White Series designs bring surfaces literally to life

Precious matting combined with **restrained holographic effects** and reduced rainbow gradients

LIGHT LINE
White Series „Frost“

Food Compliance

- SQTS-certified ➔ **no migration**
- **Easy to recycle** and **deinkable**

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WEILBURGER Graphics GmbH

WEILBURGER

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WEILBURGER Graphics GmbH

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Coating amount calculator

WEILBURGER

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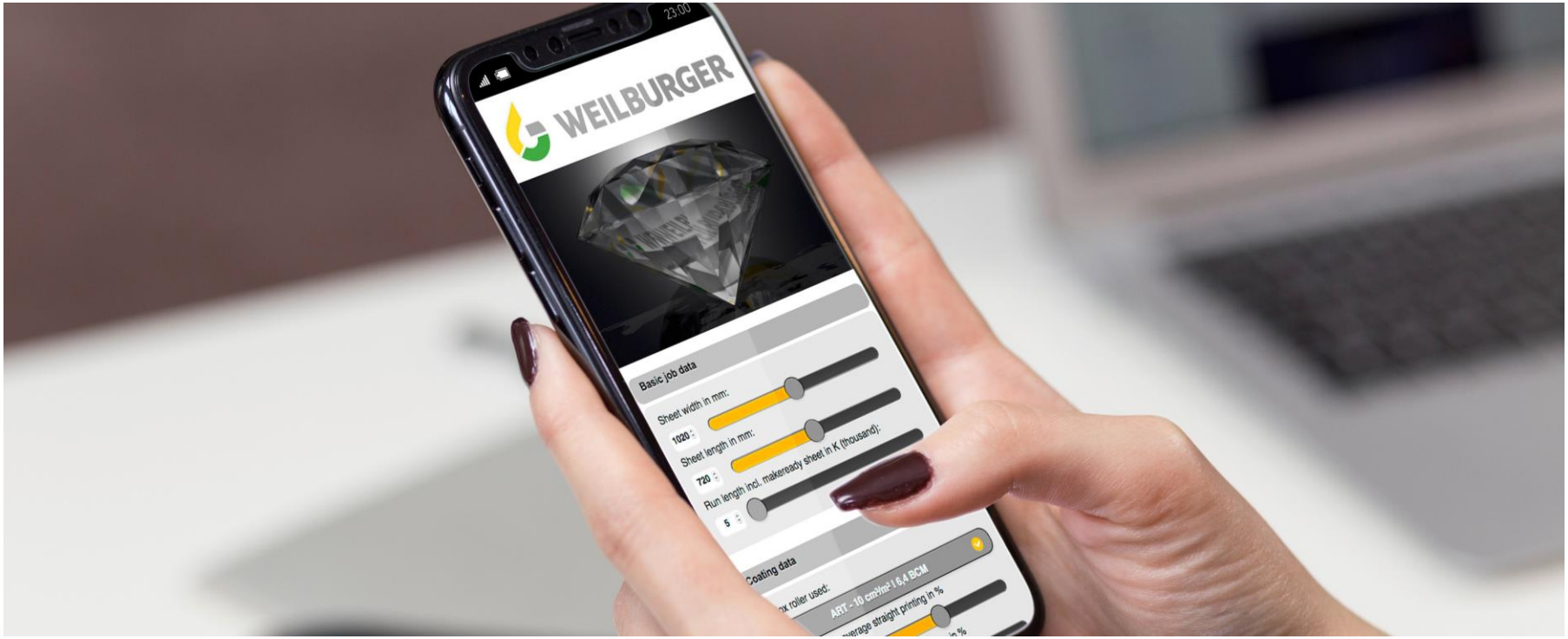
Coating amount calculator

WEILBURGER



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Coating amount calculator

WEILBURGER

Coating Calculator

Basic job data

Sheet width in mm: 1020

Sheet length in mm: 720

Run length incl. makeready sheet in K (thousand): 5

Coating data

Anilox roller used: ART - 10 cm³/m² | 6,4 BCM

Coating area coverage straight printing in %: 60

Coating area coverage reverse printing in %: 0

Calculation results

Wet application quantity coating unit: 3,7 g/m²

Amount of coating required for the coating unit: 8,15 kg

GTT - XL
GTT - XXL
Hexagonal
Hexagonal - 5 cm³/m² | 3,3 BCM
Hexagonal - 7 cm³/m² | 4,5 BCM
Hexagonal - 9 cm³/m² | 5,8 BCM
Hexagonal - 10 cm³/m² | 6,4 BCM

SENOLITH®-TWIN-HYBRID-FINISHING

If you are planning a finishing with our two-component hybrid coating systems, you can also enter the area coverages for our TWIN-EFFECT printing varnish component below. The required amount of printing varnish is then calculated on the usual wet application quantity of 1.5 g/m².

Printing varnish area coverage straight printing in %: 40

Printing varnish area coverage reverse printing in %: 0

Calculation results of printing varnish

Amount of varnish required for the printing unit: 2,2 kg

Help and instructions

Use our coating quantity calculator to calculate the required coating quantity for your print job.

Please note that these are only approximate values based on standard anilox rollers and the results of the calculation may differ from the actual coating quantities required. You should also remember that the result does not take into account the quantities of coating required for circulation and that the calculation is only suitable for unpigmented coatings.

If you need help in operating our coating quantity calculator, if your anilox roller is not listed here or if you want to calculate coating quantities for pigmented coatings, opaque white or flexo inks, please do not hesitate to contact us.

- Switchboard
- Managing Director
- Sales Director

Arno Dürr
Sales Director

Phone: +49 9163 9992-200
Mobile: +49 151 18258951
a.duerr@weilburger-graphics.de

- Technical Service and Sales
- Secretariat
- Sales & Customer Service
- Regulatory Affairs
- Quality management/ Environmental management

Imprint

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Coating amount calculator

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- Available as desktop version and web app for all current smartphones (Native apps are currently being developed)
- In German, English, Spanish, Polish
  (Further languages follow)
- Currently designed for sheetfed offset or web offset by means of rapport (full adaption to web-fed printing systems such as KBA Cortina available on request)
- Current anilox rolls with GTT, Haschur, Hexagonal, ART available
  (Further anilox rolls and engravings available on request)
- Face and back printing calculation in one step
- Overprint coatings, TWIN and hybrid systems can also be calculated for double-sided printing jobs

Coating amount calculator

WEILBURGER

English desktop version:
http://www.weilburger-graphics.de/en/info/lackmengenrechner

English web app:
http://www.weilburger-graphics.de/wa/wglmr-en.html

English press release:
http://weilburger-graphics.de/en/node/138377

Whiteboard-Video:
http://www.weilburger-graphics.de/en/info/whiteboard-videos/coating_calculator

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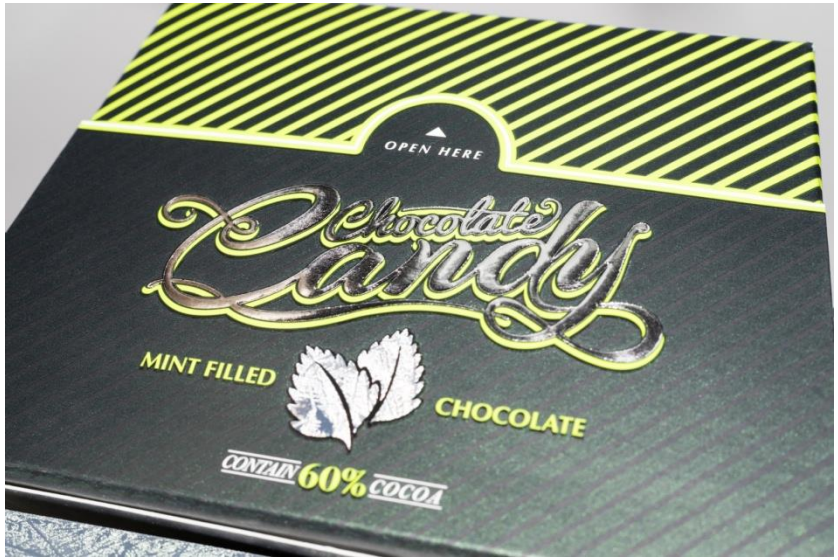
Candy Box

WEILBURGER



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Candy Box

USP:
Food product packaging, manufactured in an inline process, with distinctive shape, look and functionality

Effects:
Haptic SENOSOFT® matt coating in contrast with special effect cold foil, Pyrisma® effect pigment, hot foil embossing, blind embossing

Machine requirements:
Heidelberg ICS 670 with 8 EVA platforms, equipped with 6 flexo modules, one cold foil module, one hot foil embossing module; Heidelberg FCL 670 inline flatbed die-cutter with inline stripping and feed stations, gluing system.

Design requirements:
Distinct motif contours that can be rendered via cold and hot foil finishing, embossing and varnish effects. Relatively large areas must be included in the planning when using “frost” cold foil, because it cannot play out its full effect on small areas, due to its special design, reminiscent of window frost.

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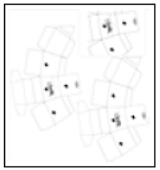
Candy Box



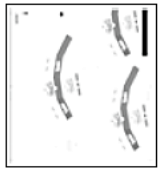
Die-cutting and stamping (die-cutting tool from **Buchner** with cutting/creasing rules from **CITO**, stamping die from **inderer+mühlich**)

WEILBURGER Graphics
SENOLITH® UV GLOSS LACQUER INLINE
FP NDC
360424

Kurz
Hot stamping foil
Luxor Alufin MTU
Spezial Silber
stamping die from **hinderer+mühlich**

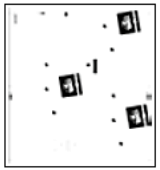
WEILBURGER Graphics
SENOSOFT® WB MATT COATING
FP NDC
350210

Merck
Pyrisma® effect pigment
T 30-24;
in carrier coating
WEILBURGER Graphics
SENOLITH® WB GLOSS PRIMER
FP NDC
350072



Zeller+Gmelin
Pantone 376 C
UVAFLEX FCM Y81

Zeller+Gmelin
Pantone Black 7C
UVAFLEX FCM Y81



Kurz
LIGHT LINE®
Frost Silver
cold foil
with
Zeller+Gmelin
ZG-UV-Flex U0842

Design, technical design:
MetsäBoard Packaging Services

Technical design optimisation, gluing:
AR Packaging

Production management / Reprography / Documentation:
Alexander Dort

Coating plates:
Flint Group

Substrate: :
MetsäBoard Prime FBB 270 g/m²

Printed at:
Heidelberg Web Carton Converting GmbH

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SENOLITH®-UV FP NDC PLUS

WEILBURGER

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SENOLITH®-UV FP NDC PLUS

USP:
Folding boxes in UV offset printing with low-migration SENOLITH® UV FP NDC PLUS lacquers

Effects:
Pigment lacquer effects, filigree hybrid varnishing effects

Machine requirements:
Four-colour offset press with at least one coating unit and UV equipment

Design requirements:
This folding box series is based on the already existing Arrow-Box, a shipping packaging produced using direct corrugated board printing. Design elements from this box will also be used for this folding box series.
In addition, a tray will be produced to hold the four folding boxes in the carton box. Since overflowing design elements are used here, seamless transitions of the designs from tray to folding boxes must be ensured.

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SENOLITH®-UV FP NDC PLUS

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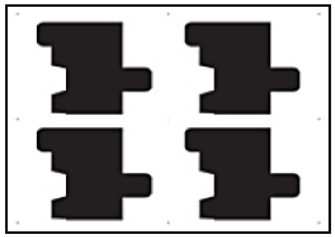
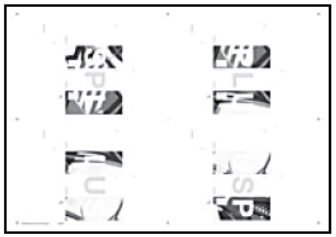
Production range:

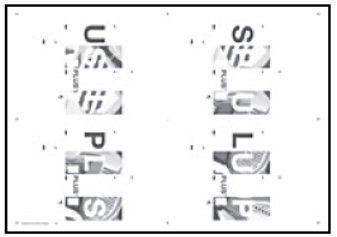


CU1:
SENOLITH® WB GLOSS PRIMER FP DC 350071

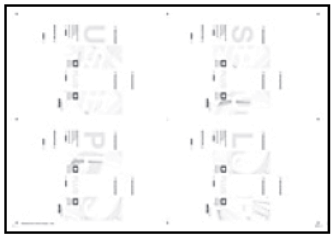
PU4:
YELLOW



PU3:
Magenta

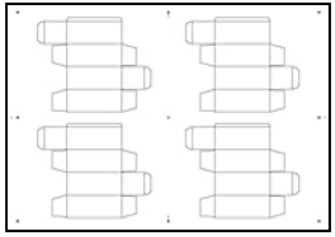


PU2:
Cyan

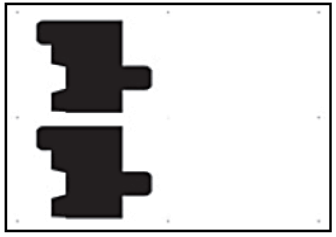


PU1:
BLACK

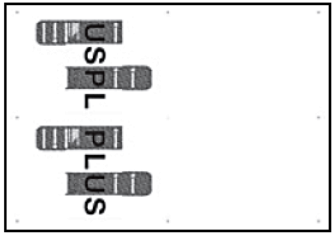
Offline finishing



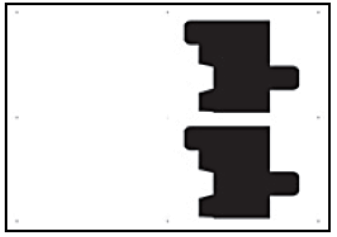
CUTTING & CREASING



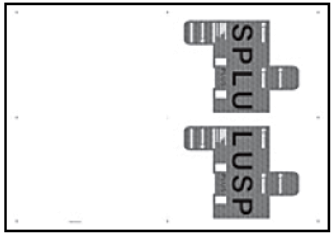
CU2:
SENOLITH® UV GLOSS LACQUER INLINE FP NDC PLUS 360430



CU1:
SENOLITH® WB EFFECT PRIMER PERL EFFECT 100 350329



CU1:
SENOLITH® UV GLOSS LACQUER OVER-PRINTABLE FP NDC PLUS 360435



PU1:
SENOLITH® OB EFFECT MATT VARNISH HYBRID FP NDC 355424

connection of competence

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UV Technology

IST

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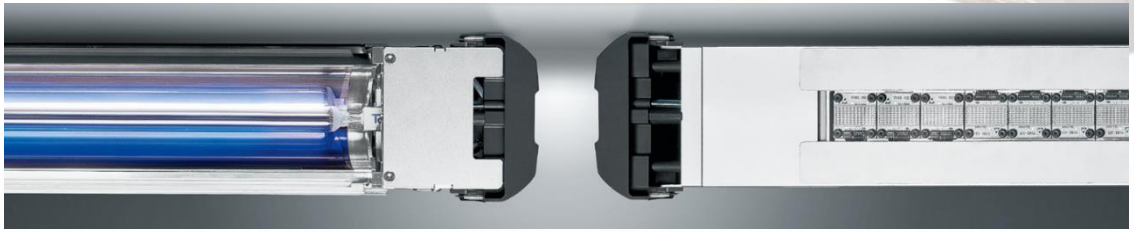
UV Technology

IST

- UV System: Key element related to safety
- Food Compliance: Constant output at 24/7
- Performance everytime
- Technology: Dedicated for the needs

UV Technology

- Adaption to the process, Selection of the right technology
- High Power = High Safety? No!
- Right Lamp, right Reflector, right LED Source, right Spectrum, right…..
- Flexibilty for changing needs in the future: Hot Swap (Lamp/LED)



UV Technology

A word about Food Compliance:

- Many even sensible Food packaging Products are produced with UV curing today (Liquid Packaging, Tobacco Packaging, Coffee Packaging etc.)

- Example: The provided sample and the foodbox you received @ lunch

UV Technology

A word about Food Compliance:

- Besides suitable inks and varnishes the UV Curing System plays an essential role: Insufficent Curing leads to a rised risk of migration issues

- Proper Conditions (including maintenance & servicing) ensures a proper function

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Food safe Candy Box

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3D and tactile premium Effects

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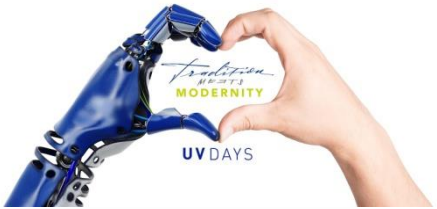
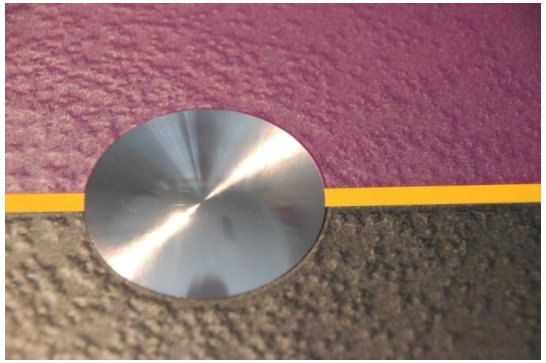
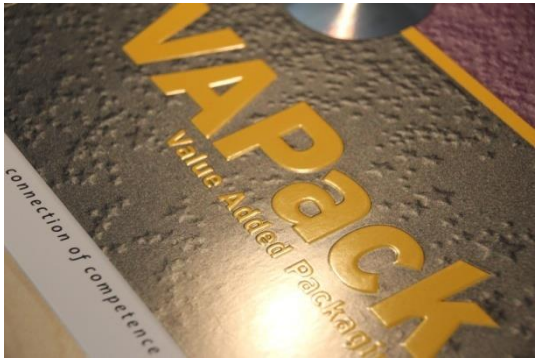


3D effects – VAPack Folder





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MERCK

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buchner STANZFORMEN

FlintGroup

TRENDHOUSE 42

h+m

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Nature Cosmetics Box

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h+m

LasX

MARBACH

SCHAWK! GOSLAR

VRIJDAG premium printing

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Nature Cosmetics Box

- **4-part** presentation and gift box
- **Color Forecast** for **cosmetic applications** from company Merck
- Current colour themes and how they can be implemented in cosmetic products

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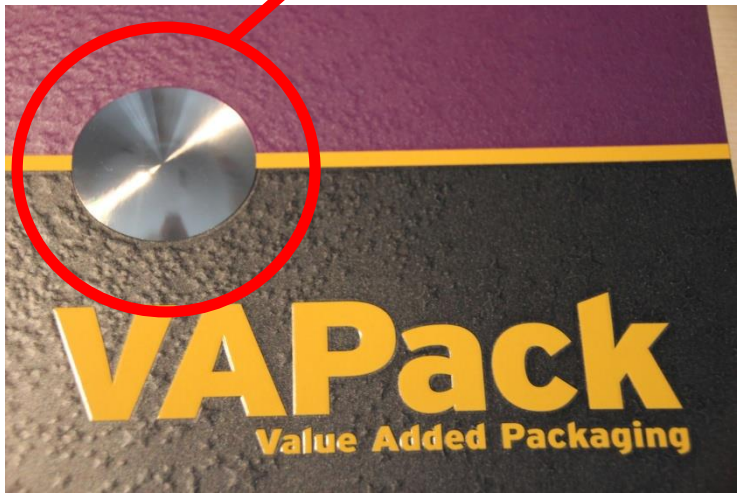
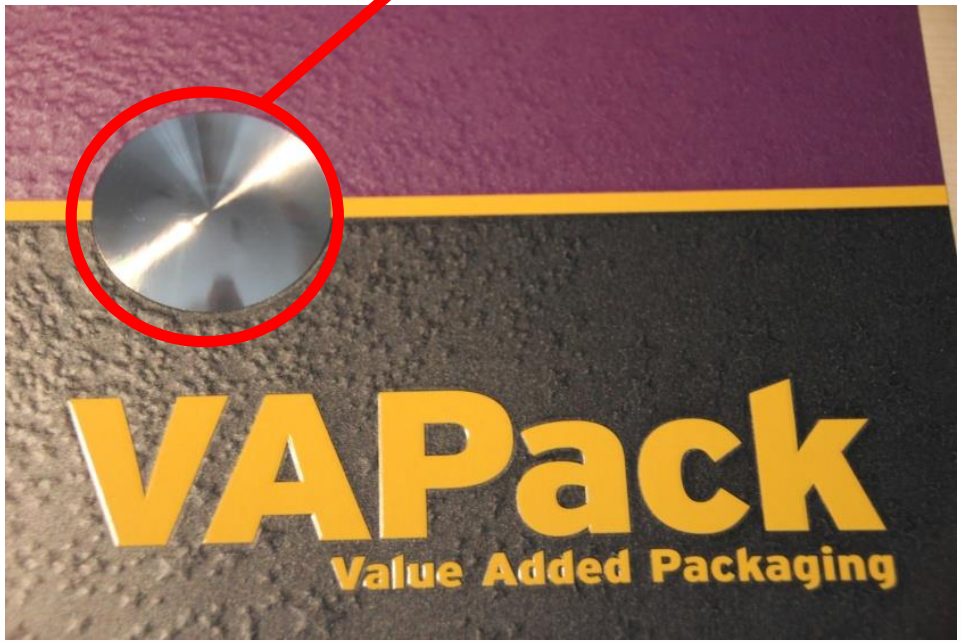
Hologram & Embossing

KURZ



Hologram

KURZ TRUSTSEAL® Lens



Embossing

Multilevel blind (without foil) relief embossing (stamping dies by h+m)

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Nature Cosmetics Box

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Gift box with prominent foil, bronzing and laser-cutting effects

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Nature Cosmetics Box

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Gift box with prominent foil, bronzing and laser-cutting effects

- **LUMAFIN® yellow**
- **LUXOR® 397** partially enhanced with appealing nanoembossed elements (h+m)

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Nature Cosmetics Box

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Nature Cosmetics Box

USP:

Multi-part presentation and gift box with prominent foil, bronzing and laser-cutting effects.

Effects:

Bronzing with effect pigments, various hot foil embossing techniques with nanoembossing, matt/gloss effects tactile varnish effects, intricate laser-cutting (for a segment of the print run).

Machine requirements:

Four-colour offset press with coating unit and UV capability, bronzing machine, die-cutting machine, industrial high-speed laser-cutting system.

Design requirements:

Distinct motif contours that can be rendered using hot foil finishing, embossing, bronzing and varnishing effects; homogeneous, dark colour areas for achieving high brilliance with the selected pigment varnishes.

To ensure the highest possible level of process stability, a decision was made not to mask out any of the varnishes used underneath the areas of hot foil embossing. All of the varnishes therefore had to be suitable for over-printing and over-stamping.

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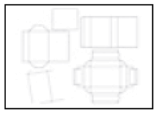
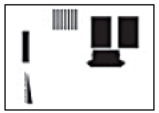
Nature Cosmetics Box

Anilox rollers: 80 L/cm and 13 cm³/m²

Primer: 80 L/cm and 17 cm³/m²

Dispersion coating:

									
Die cutting (Die from **Marbach**)	Hot foil stamping Luxor 397 (Tools from **hinderer+mühlich**)	Hot foil stamping LUMAFIN MS 710 YELLOW (Tools from **hinderer+mühlich**)	**WEILBURGER Graphics** SENOLITH® UV OFFSET MATT VARNISH 369003	Sealed with dispersion coating	Bronzing with- **Merck** effect pigment Iriodin 6163 Icy White Shimmer	**WEILBURGER Graphics** SENOLITH® WB GLOSS PRIMER FP DC 350071	**Epple** PMS 475C PROLASER ORANGE 128834	**Epple** PMS 1485C PROLASER ORANGE 128833	**Epple** PMS 7596C PROLASER BROWN 128832

Design:
LEONHARD KURZ Stiftung & Co. KG, Julia König

Coating plates:
SCHAWK!

Substrate:
MetsäBoard Pro FBB Bright 295 g/m²

Printed at:
Vrijdag Premium Printing

Laser-cutting system and service
LasX

Production management, documentation:
Alexander Dort

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Nature Cosmetics Box & VAPack Folder

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KURZ

MERCK

MetsäBoard

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EINLADUNG
PRoduktion
EMIssion
UMwelt!
GRAND ELYSÉE HOTEL
HAMBURG
[28. - 29. OKTOBER 2019]
STEIGENBERGER GRAF
ZEPPELIN HOTEL
STUTTGART
[25. - 26. NOVEMBER 2019]
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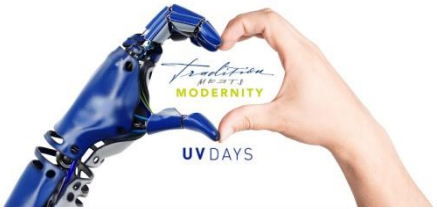
Information & Dialogue

Interesting mix of

- Keynote Presentations
- Interaktive Breakout Sessions
- Networking

Food compliance & decoration for premium packages

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