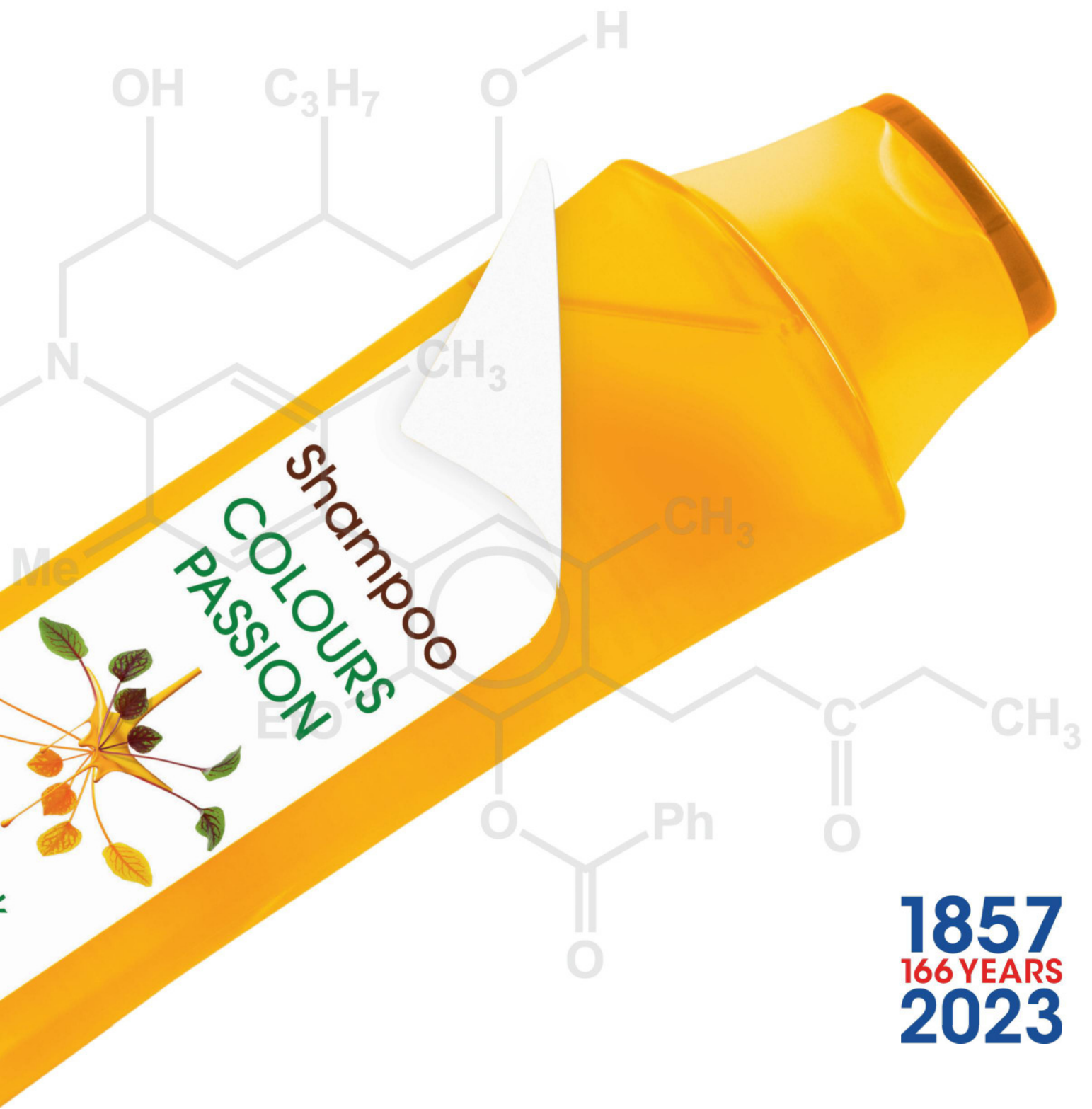


Printing inks for labels



Contents



Low-migration ink systems

- What does „low-migration“ mean? Page 3
- UV opaque white low-migration, silicone-free for rotary screen and flexo printing **905UV1484LM** Page 4
- UV screen printing inks low-migration, silicone-free for rotary screen printing **905UV-LM** Page 5
- UV flexo printing inks opaque white low-migration, silicone-free **UVFX-1059LM** Page 6
- UV flexo printing inks low-migration, silicone-free **UVFX-LM** Page 7

New types of opaque white based on future-oriented raw materials

For combination printing in rotary screen and flexo printing:

- UV opaque white silicone-free **900UV1494** Page 8
- UV High End opaque white silicone-free **900UV1600** Page 9
- LED High End opaque white silicone-free **900LED1700** Page 10

For flatbed screen printing:

- UV opaque white silicone-free **900UV1602** Page 11

Standard ink systems

- The standard ink system Page 12
- UV screen printing inks silicone-free for rotary screen printing **963UV-SF** Page 13
- UV screen printing inks **985UV** and **985UV/NV** Page 14
- UV screen printing inks effect inks **985UV** Page 15
- UV flexo printing opaque white silicone-free **UVFX-1044** Page 16
- UV flexo printing opaque white for sleeves **UVFX-1072** Page 17
- UV flexo printing inks white silicone-free **UVFX** Page 18
- UV flexo printing inks silicone-free **UVFX-LED** Page 19
- UV screen printing inks brilliant silver, effect ink **900UV4374** Page 20
- UV screen printing inks tactile varnish **960UV298** and **960UV600** Page 21

Overview UV varnishes, low-migration and standard

Page 22 - 23

Low-migration



In addition to meet aesthetic and commercial requirements, packaging for food, cosmetics and pharmaceutical products also has the special task to protect products against external influences. Minimising the transition of components from the packaging material to the products is crucially important in this regard. As a specialist supplier, RUCO recognised this importance early on and therefore developed low-migration (LM) printing inks to cater for the needs of the packaging industry. The formulation of these low-migration inks is such that, provided they are used correctly, they comply with the migration threshold values for the substances in question.

What exactly do the terms “migration” and “low-migration” mean?

Migration is the movement of material components from the packaging material to the product contained therein. A distinction is made between two types of migration:

- Penetration: The constituent migrates from the outer surface of the packaging through the packaging into the product.
- Set-off: The printing ink sets off to the food-contact surface when in the stack or on the reel.

“Low-migration” means that only those raw materials are used that have a minimal level of migration or do not migrate at all under normal processing, storage and conditions of use. This is particularly important for food packaging decoration.

What to take into consideration?

Personnel

- Train your employees to ensure their acceptance and awareness of the required care and attention

Consumables

- Use suitable materials exclusively (washing agents, printing inks / varnishes, substrates with barrier function, adhesives, wetting agents and other printing auxiliaries)

Machine / Production

- The cleanliness of machines and premises must take top priority; for example with regard to print rollers, blankets, printing plates, UV lamps and reflectors, exhaust facilities etc.

Documentation

- Implement a system according to 1935/2004 Art. 17 to ensure traceability

Practical recommendations:

- Use low-migration products for all printing jobs carried out for the food, cosmetics and pharmaceutical industries
- Wherever possible, use substrates with barrier effects
- Use low-migration consumables exclusively
- Use low-migration varnishes and adhesives exclusively, as well as suitable printing auxiliaries
- Avoid the risk of “contamination” by ensuring thorough cleaning of print rollers and blankets
- Use individual printing presses for low-migration printing exclusively
- Check UV emitters and reflectors at regular intervals

UV opaque white low-migration, silicone-free
for rotary screen and flexo printing

905UV1484LM



Your benefits

- Low-migration comply with the current "Nestlé Guidance Note on Packaging Inks"
- In accordance with positive list 1A of the EuPIA Suitability List of Photoinitiators as well as the specifications of the Swiss EDI Ordinance on Consumer Goods (SR 817.023.21) for inks applied to the non-food contact surface of food packaging
- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- Free from **CMR materials**
- Opaque white for combination printing in **rotary screen** and **flexo printing**
- Silicone-free, barium-free, low-odour, highly opaque, low viscosity, suitable for stamping
- Very good flow characteristics
- Excellent printability with UV flexo, offset and **inkjet inks** as well as very good embossable in hot and cold foil stamping process
- Good solvent and water resistance as well as excellent filling resistance after 48 hours

Substrates

- Pre-treated PE and PP, top-coated PE, top-coated PP, top-coated polyester, PVC, other types of plastic as well as paper and cardboard



UV screen printing inks low-migration,
silicone-free for rotary screen printing

905UV-LM



■ Your benefits

- Low-migration comply with the current "Nestlé Guidance Note on Packaging Inks"
- In accordance with positive list 1A of the EuPIA Suitability List of Photoinitiators as well as the specifications of the Swiss EDI Ordinance on Consumer Goods (SR 817.023.21) for inks applied to the non-food contact surface of food packaging
- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- Free from mineral oil *
- Silicone-free, barium-free and low-odour
- Low viscosity and very reactive even at high machine speeds up to 60 m/min
- Very good flow characteristics
- High opacity and colour brilliance by optimal pigment wetting and ideal basic colour shades composition
- Good solvent and water resistance as well as excellent filling resistance after 48 hours
- The inks series is suited especially for combination printing with low migration UV flexo printing inks

* according to EuPIA definition

■ Substrates

- Pre-treated PE and PP, top-coated PE, top-coated PP, top-coated polyester, PVC, other types of plastic as well as paper and cardboard

■ Product range

- 10 basic colour shades and transparent white



UV flexo printing opaque white
low-migration, silicone-free

UVFX-1059LM



Your benefits

- Low-migration comply with the current "Nestlé Guidance Note on Packaging Inks"
- In accordance with positive list 1A of the EuPIA Suitability List of Photoinitiators as well as the specifications of the Swiss EDI Ordinance on Consumer Goods (SR 817.023.21) for inks applied to the non-food contact surface of food packaging
- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- Silicone-free, barium-free and low-odour
- Excellent printability at high speeds thanks to low viscosity
- Very good chemical resistance
- Optimal results in combination with other UV printing processes, varnishing and hot foil stamping
- For use on all standard UV flexo printing machines

Substrates

- Pre-treated PE and PP, TC PE, TC PP, TC Polyester, PVC as well as paper and cardboard



UV flexo printing inks low-migration,
silicone-free

UVFX-LM



■ Your benefits

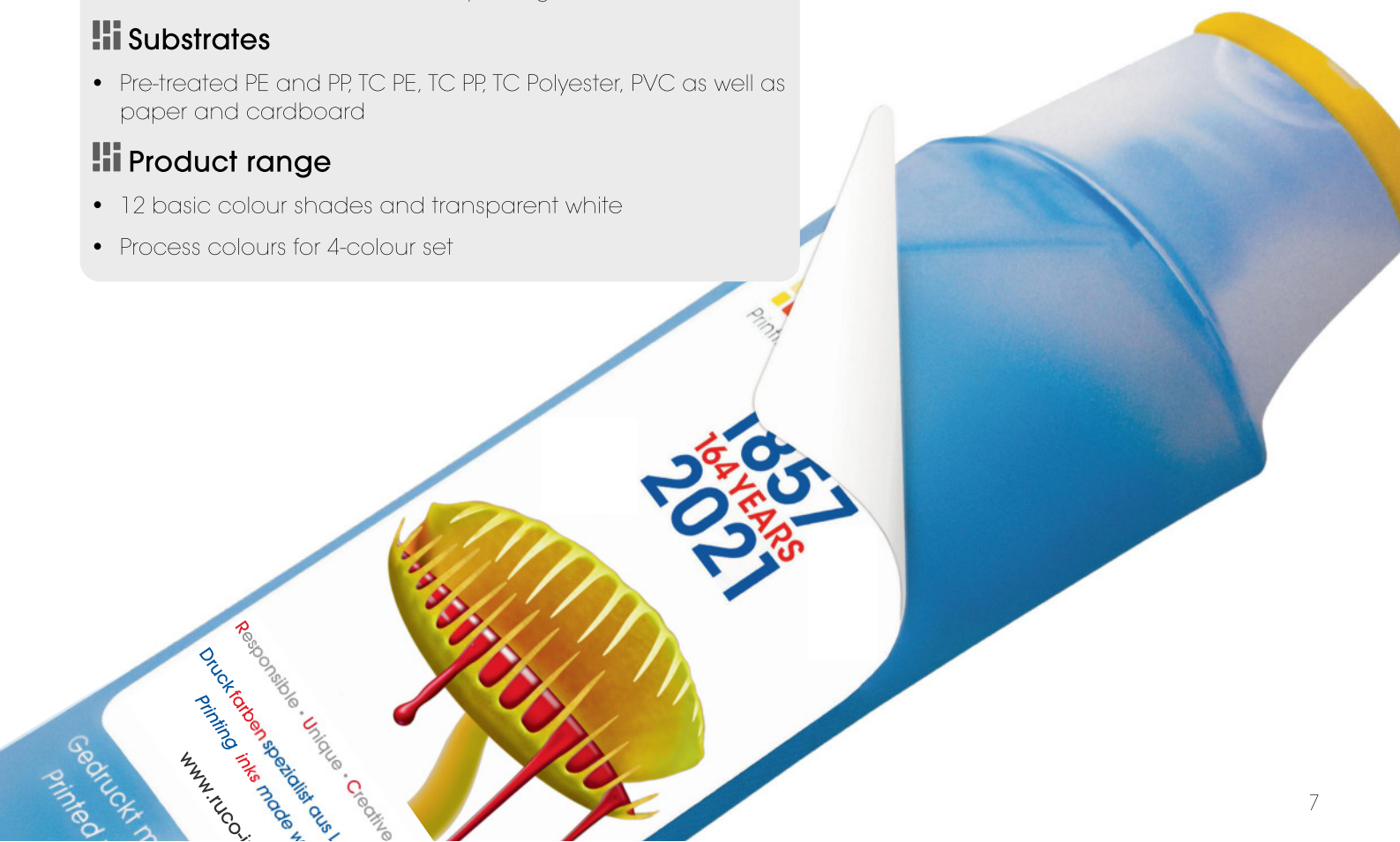
- Low-migration comply with the current "Nestlé Guidance Note on Packaging Inks"
- In accordance with positive list 1A of the EuPIA Suitability List of Photoinitiators as well as the specifications of the Swiss EDI Ordinance on Consumer Goods (SR 817.023.21) for inks applied to the non-food contact surface of food packaging
- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- Silicone-free, barium-free and low-odour
- Excellent printability at high speeds thanks to low viscosity
- High opacity and colour brilliance by optimal pigment wetting and ideal basic colour shades composition
- Excellent in line, half-tone and full-tone printing
- Very good chemical resistance
- Optimal results in combination with other UV printing processes, varnishing and hot foil stamping
- For use on all standard UV flexo printing machines

■ Substrates

- Pre-treated PE and PP, TC PE, TC PP, TC Polyester, PVC as well as paper and cardboard

■ Product range

- 12 basic colour shades and transparent white
- Process colours for 4-colour set



UV opaque white silicone-free
for **rotary screen** and **flexo printing**

900UV1494



Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- New development with future-oriented raw materials
- Opaque white for combination printing in **rotary screen** and **flexo printing**
- Silicone-free, highly opaque and very reactive
- Low-viscosity for printing speeds of up to 80 m/min
- Excellent printability of the very smooth surface with UV flexo, offset and **inkjet inks** as well as very good embossable in hot and cold foil stamping process
- Very good solvent and water resistance after 12 hours
- Excellent filling resistance after 48 hours

Substrates

- Pre-treated PE and PP, TC PE, TC PP, TC Polyester, PVC, other types of plastic as well as paper and cardboard



UV High End opaque white silicone-free
for **rotary screen** and **flexo printing**

900UV1600



■ Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- New development with future-oriented raw materials
- Opaque white for combination printing in **rotary screen** and **flexo printing**
- Silicone-free, low-viscosity and highly opaque
- High reactive premium white for printing speeds up to 120 m/min
- Excellent flow characteristics
- Fast scratching and tesa strength even at lower curing energies
- Excellent printability of the very smooth surface with UV flexo, offset and **inkjet inks** as well as very good embossable in hot and cold foil stamping process
- Very good solvent and water resistance after 12 hours
- Excellent filling resistance after 48 hours

■ Substrates

- Pre-treated PE and PP, TC PE, TC PP, TC Polyester, PVC, other types of plastic as well as paper and cardboard



LED High End opaque white silicone-free
for **rotary screen** and **flexo printing**

900LED1700



Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- New development with future-oriented raw materials
- Opaque white for combination printing in **rotary screen** and **flexo printing**
- Silicone-free, low-viscosity and very reactive
- LED curing (395 nm) and very suitable for high printing speeds > 100 m/min
- Excellent printability of the very smooth surface with UV flexo, offset and **inkjet inks** as well as very good embossable in hot and cold foil stamping process
- Very good solvent and water resistance after 12 hours
- Excellent filling resistance after 48 hours

Substrates

- Pre-treated PE and PP, TC PE, TC PP, TC Polyester, PVC, other types of plastic as well as paper and cardboard



UV opaque white silicone-free
for **flatbed screen printing**

900UV1602



■ Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- New development with future-oriented raw materials
- Free from mineral oil *
- Silicone-free and very reactive
- Standard pre-print white of medium viscosity, suitable for **flatbed screen printing machines** (roll on roll) with printing speeds up to 30 m/min
- Excellent flow characteristics
- Excellent printability of the very smooth surface with UV flexo, offset and **inkjet inks** as well as very good embossable in hot and cold foil stamping process
- Very good solvent and water resistance after 12 hours

* according to EuPIA definition

■ Substrates

- Pre-treated PE and PP, TC PE, TC PP, TC Polyester, PVC, other types of plastic as well as paper and cardboard



Standard ink system



The standard ink system for printing on combination printing machines is based on the UV flexo and screen printing inks for flat bed as well as for rotary screen printing.

Printing varnishes for different application techniques ideally round off the system and enable high resistances and eye-catching advertising effects to be achieved.

Optimum crosslinking characteristics ensure the intercompatibility of these different label printing ink series.

Very good overprinting and printing characteristics with various printing techniques guarantee excellent inline production.

High process stability and very low-odour are further advantages of the standard ink system.

UV screen printing inks silicone-free
for rotary screen printing

963UV-SF



Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- Silicone-free, barium-free and low-odour
- Very reactive even at high machine speeds of up to 60 m/min
- Low viscosity and universal use
- Very good flow characteristics
- High opacity and colour brilliance by optimal pigment wetting and ideal basic colour shades composition
- Good solvent and water resistance
Excellent filling resistance after 48 hours
- The inks series is suited especially for combination printing with UV flexo printing inks

Substrates

- Pre-treated PE and PP, TC PE, TC PP, TC Polyester, PVC, paper and cardboard

Product range

- 10 basic colour shades and transparent white
- Highly opaque white
- Overprinting varnishes for UV screen



UV screen printing inks

985UV and 985UV/NV



■ Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- Universal use, both for flatbed screen printing and rotary screen printing (**low-viscosity formulation – 985UV/NV**)
- High gloss, very reactive ink with high opacity
- Excellent flow characteristics
- Very good curing and adhesion even at high printing speeds
- Good solvent and water resistance after 12 hours

■ Substrates

- Pre-treated PE and PP, TC PE, TC PP, TC Polyester, PVC, other types of plastic as well as paper and cardboard

■ Product range

- 11 basic colour shades and transparent white
- Process colours for 4-colour set
- Lightfast formulation
- Highly opaque white and black
- Metallic effect inks
- Overprinting varnish for UV screen printing



UV screen printing effect inks

985UV



■ Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- High glossy, very reactive ink with high opacity
- Excellent flow characteristics
- Very good curing and adhesion even at high printing speeds
- Good solvent and water resistance after 12 hours

■ Substrates

- Pre-treated PE and PP, TC PE, TC PP, TC Polyester, PVC, other types of plastic as well as paper and cardboard

■ Product range

- Fluorescent inks (yellow, orange, magenta, cyan)



UV flexo opaque white silicone-free

UVFX-1044



Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- Silicone-free, barium-free and low-odour
- Low viscosity and very reactive for printing speeds up to 150 m/min
- Excellent scratch resistance
- Very good chemical resistance
- Optimal results in combination with other UV printing processes, varnishing and hot foil stamping
- For use on all standard UV flexo printing machines

Substrates

- Pre-treated PE and PP, OPP, PET, PVC, as well as paper and cardboard



UV flexo opaque white for sleeves

UVFX-1072



Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- Highly opaque with low COF
- Barium-free and low-odour
- Low-viscosity and very reactive for printing speeds up to 150 m/min
- Excellent scratch resistance
- Very good chemical resistance
- For use on all standard UV flexo printing machines

Substrates

- Pre-treated OPP and PET



UV flexo printing inks silicone-free

UVFX



Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- Silicone-free, barium-free and low-odour
- Low-viscosity and very reactive for printing speeds up to 150 m/min
- Excellent printability
- Very good chemical resistance
- Optimal results in combination with other UV printing processes, varnishing and hot foil stamping
- For use on all standard UV flexo printing machines

Substrates

- Pre-treated PE and PP, OPP, PET, PVC, as well as paper and cardboard

Product range

- 13 basic colour shades and transparent white
- Process colours for 4-colour set
- Highly opaque white and black
- Silver and gold



LED flexo printing inks silicone-free

UVFX-LED



Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- Silicone-free, barium-free and low-odour
- LED curing ink series (395 nm), low-viscosity and very reactive for printing speeds up to 90 m/min
- Excellent in line, half-tone and full-tone printing
- Very good chemical resistance
- Optimal results in combination with other UV printing processes, varnishing and hot foil stamping
- For use on all standard LED flexo printing units

Substrates

- Pre-treated PE and PP, OPP, PET, PVC, as well as paper and cardboard

Product range

- 13 basic colour shades and transparent white
- Process colours for 4-colour set
- Highly opaque white and black (very reactive)



UV screen printing ink brilliant silver

900UV4374



Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- Excellent brilliance with mirror effect
- Low-viscosity and very reactive
- Excellent opacity and flow characteristics
- Very good adhesion immediately after UV curing
- Use in rotary screen printing and flatbed screen printing
- Optimal results in combination with our screen and flexo printing inks as well as appropriate varnishes

Substrates

- Pre-treated PE, PP, OPP, PET as well as PVC, paper and cardboard



UV screen printing tactile varnishes

960UV298

Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- High tactile varnish 150 - 250 µm, glossy and reactive for flatbed screen printing
- Good solvent and water resistance
- Immediate further processing possible

Substrates

- Pre-treated PE, PP, PET as well as paper and cardboard



960UV600

Your benefits

- Free from ITX, benzophenone, 4-methylbenzophenone (4-MBP) as well as formulated free from Bisphenol A
- New development with future-oriented raw materials
- Low tactile varnish 50 - 100 µm, glossy, transparent, flexible and silicone-free for rotary screen printing
- Good solvent and water resistance
- Immediate further processing possible

Substrates

- Pre-treated PE, PP, PET as well as paper and cardboard



UV VARNISHES

	Low-migration varnishes				
Technical information	UV overprinting varnishes			UV tactile varnishes	
960UV	480LM	481LM	488LM	494LM	
Application	high gloss	matt	satin matt	gloss low tactile	
pre-treated plastic films - PE, PP, PET	•	•	•	•	
printed plastic films	•	•	•	•	
paper, carboard	•	•	•		
printed paper, printed carboard	•	•	•		
Printing process					
flatbed screen printing					
rotary screen printing				•	
flexo printing	•	•	•		
offset varnish unit	•	•	•		
roller coater / chamber blade	•				
inline	•	•		•	
approx. speed of machine (m/min)	80	25	35	50	
OPV properties					
ITX-, benzophenone-, 4-Methylbenzophenone-free	•	•	•	•	
free from Bisphenol A	•	•	•	•	
low-migration	•	•	•	•	
current "Nestlé Guidance Note on Packaging Inks"	•	•	•	•	
silicone-free	•	•	•		
reactive	•	•	•	•	
high-gloss	•				
gloss				•	
matt		•			
satin matt			•		
low tactile 50 - 100 µm				•	
high tactile 150 - 250 µm (braille)					
Properties, cured OPV					
high-slip					
gluing	•		* limited suitability	•	
hotfoil stamping/ foil blocking	•		* limited suitability	•	
thermotransfer printable					
inkjet printable					
high degree of finishing				•	
high scuff resistance				•	
high chemical resistance	•	•	•	•	
high water resistance					
immediate further processing	•	•	•	•	

Note: RUCOINX UV varnishes are not suitable for direct food contact

Standard varnishes

UV overprinting varnishes					UV tactile varnishes					
161	362	407	417	435	290	298	393	438	600	601
high gloss	gloss	gloss	matt	matt	high tactile	high tactile	high tactile	low tactile	low tactile	low tactile
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* limited suitability

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