

ROTOFLEX INKS



ROTOFLEX



OVERVIEW INKS

PRINTING INK SERIES

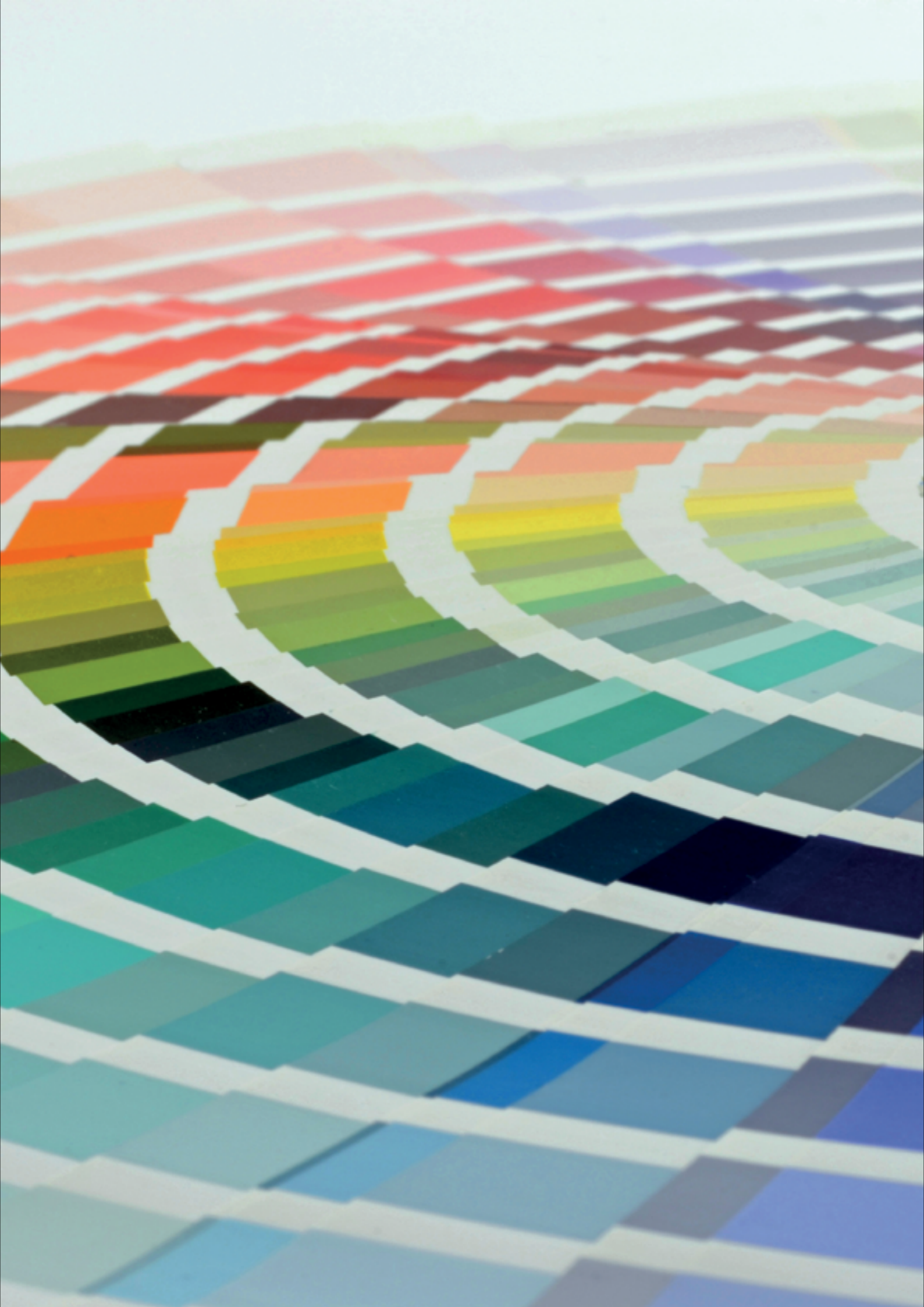
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PRINTING INKS SERIES

22	PRINTING INKS For Series 22	Printing ink series, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging.
23	PRINTING INKS For Series 23	Printing ink series, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging.
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56	PRINTING INKS For Series 56	Intended for outside printing on a large range of flexible plastic packaging films, mainly for food packaging.
231	PRINTING INKS For Series 231	Solvent based ink system for the printing on flexible plastic films, mainly for food packaging. The series is «OK compost» certified and is intended for frontal printing.
61	PRINTING INKS For Series 61	Printing ink series, which is designed for printing on a wide range of flexible packaging films, primarily for food packaging.

PRINTING INKS SERIES 22

Series 22 is a printing ink series, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging. It is used predominantly for reverse printing with lamination and sterilization, e.g. for stand-up pouches which are sterilized after filling and closing. It has only limited suitability for surface printing.

PROPERTIES

- Very low residual solvent level
- Very low migration
- Contains mainly poly urethane as a binder
- Contains no migrating plasticizers, no acrylates, no cellulose nitrate and no chlorine based binders such as PVC

ADVANTAGES

- Excellent tape adhesion on many film types
- Particularly optimized for reverse printing with excellent lamination bond strength
- Very fast solvent release, causing very low residual solvents

TECHNICAL DETAILS

Substrates	Plastic packaging films with corona pre-treatment: Polyethylene, Polypropylene, Polyester, Polyamide Plastic packaging films with functional coatings: SiO _x , AlO _x , EVOH, PVOH, PVdC and acrylic coatings Paper, Aluminium
Coating Weight	1,0 g/m ² – 3,0 g/m ² (dry)
Printing Process	Rotogravure, Flexo printing
Appearance	Transparent with high colour strength and medium gloss. Their pigments and binders are optimized for smallest possible colour changes effected by heat, for example by sterilising or heat sealing
Odour	Nearly odourless printed with the recommended film thickness and after sufficient drying
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol
Sterilization	up to 135 °C during 1h
Adhesion	Excellent tape adhesion on most films. OPP, CPP, PET and OPA foils need a good corona pretreatment. In critical cases the adhesion can be increased by using a primer like L-122-22.

PRINTING INKS SERIES 23

The **Series 23** is a printing ink series, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging. It is used predominantly for reverse printing with lamination and sterilization, e.g. for stand-up pouches which are sterilized after filling and closing. It has only limited suitability for surface printing.

PROPERTIES

- Very low residual solvent level
- Very low migration
- Contains mainly poly urethane as a binder
- Contains no migrating plasticizers, no acrylates, no cellulose nitrate and no chlorine based binders such as PVC

ADVANTAGES

- Excellent tape adhesion on many film types
- Particularly optimized for reverse printing with excellent lamination bond strength
- Very fast solvent release, causing very low residual solvents

TECHNICAL DETAILS

Substrates	Plastic packaging films with corona pre-treatment: Polyethylene, Polypropylene, Polyester, Polyamide Plastic packaging films with functional coatings: SiO _x , AlO _x , EVOH, PVOH, PVdC and acrylic coatings Paper
Coating Weight	1,0 g/m ² – 3,0 g/m ² (dry)
Printing Process	Flexo printing, Rotogravure
Appearance	Transparent with high colour strength and medium gloss. Their pigments and binders are optimized for smallest possible colour changes effected by heat, for example by sterilising or heat sealing
Odour	Nearly odourless printed with the recommended film thickness and after sufficient drying
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol
Sterilization	up to 135 °C during 1h
Adhesion	Excellent tape adhesion on most films. OPP, CPP, PET and OPA foils need a good corona pretreatment. In critical cases the adhesion can be increased by using a primer like L-297-23.

PRINTING INKS SERIES 29

The solvent based Printing Ink **Series 29** is optimized for printing on a wide range of flexible packaging films, primarily for food packaging.

PROPERTIES

- Suitable for frontal and reverse printing
- Low residual solvents
- Low migration, therefore especially suitable for food packaging
- Free of migrating plasticizers, acrylates, and chlorine based binders such as PVC and PVdC

ADVANTAGES

- Very good tape adhesion and lamination bond strength on various film types
- High colour strength and high gloss
- Good rub and scratch resistance
- A special version of this series, the Series 29-S, is optimized for frontal printing on shrink sleeves due to particularly modified slip properties

For special applications some limitations should be observed:

- Series 29 is not suitable for the sterilization with boiling water or water vapour
- If Series 29, printed on the outside of a packaging, is strongly exposed to water or moisture, for instance in deep-frozen food, a water resistant overprint varnish should be applied

TECHNICAL DETAILS

Substrates frontal printing	Plastic packaging films with corona pre-treatment: PET, OPA, OPP, cPP, PE Plastic packaging films with functional coatings: AlO _x , EVOH, PVdC and acrylic coatings Aluminium with primer layer, Paper
Substrates reverse printing	Plastic packaging films with corona pre-treatment: PET, OPA, OPP, cPP Plastic packaging films with functional coatings: AlO _x , EVOH, PVdC and acrylic coatings
Coating Weight	0,5 g/m ² – 2,5 g/m ² (dry)
Printing Process	Rotogravure, Flexo printing
Appearance	The dried layers of the coloured inks are glossy and transparent
Odour	The layers are nearly odourless printed with the recommended film thickness and after sufficient drying
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol
Sterilization	Not intended for sterilization
Adhesion	Good to excellent adhesion on many different film types. In many printing plants the complete spectrum of substrates can be printed with Series 29 as the only ink series

PRINTING INKS SERIES 56

The Printing Ink **Series 56** is intended for outside printing on a large range of flexible plastic packaging films, mainly for food packaging.

PROPERTIES

- Suitable for surface printing
- Also suitable for reverse printing with lamination in OPP/OPP laminates in special cases
- Low migration values
- Binder system based mainly on cellulose nitrate and polyurethanes
- Free of acrylates and chlorine based binders such as PVC or PVdC

ADVANTAGES

- Good tape adhesion
- Good optical properties: gloss, colour strength and transparency of coloured inks
- Good opacity of white and black inks
- Good mechanical properties such as scratch and rub resistance

TECHNICAL DETAILS

Substrates	PE with corona pre-treatment or primer coating, OPP with corona pre-treatment or primer coating, Aluminium with primer coating, Paper
Coating Weight	1,0 - 3,5 g/m ² (dry film)
Printing Process	Rotogravure, Flexo printing
Appearance	The dried coloured inks of Series 56 offer a high colour strength, high gloss and high transparency. The white and black inks have a good to very good opacity
Odour	The layer is nearly odourless after sufficient drying
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol
Sterilization	Not intended for sterilization over 100 °C
Adhesion	Good tape adhesion on most films. The substrates need a good Corona pretreatment. Adhesion tests should be performed with the whole set of inks including primer, white, inks, overprint varnish.

PRINTING INKS

SERIES 231 GREEN LINE

The **231 Series Green Line** is a solvent based ink system for the printing on flexible plastic films, mainly for food packaging. It is intended for frontal printing. It is specially optimized for printing on biodegradable films, such as PLA, which meet the harmonised European standard EN 13432 which defines the technical specification for the compostability of bioplastics products. However, it is also suitable for the printing on the classic substrates such as PE or paper.

The Series 231 was especially developed for compostable packagings. Several components of printing inks like inorganic substances, binders and organic pigments are persistent or even non - biodegradable.

For the printing inks of the Series 231 appropriate pigments were selected in order to minimize their heavy metal content and renewable binders were preferred. The printing inks of the Series 231 were tested by an independent laboratory according to the international norm DIN EN 13432. If they are applied in a concentration up to 1.0% each (dry weight), they fulfil all evaluation criteria of:

- Good adhesion on bio degradable substrates like PLA as well on classical films like PE and paper
- High colour strength and transparency
- Good gloss
- Good mechanical resistance against scratching and rubbing.
- Free from chlorine containing binders like PVC or PVDC.

The Rotoflex AG is a registered licensee (S316) authorized to use the conformity mark «OK compost» for their printing inks Series 231 Green Line. Licensor: TÜV Austria Belgium, Steenweg op Mechelen, B-1950 Kraainem, Belgium (formerly AIB-Vinçotte International n.v., Belgium). <http://www.tuv-at.be>



TECHNICAL DETAILS

Substrates	Bio-degradable film such as PLA (Polylactic acid), Plastic packaging films with corona pre-treatment or acrylic coating: PE, OPP Paper
Coating Weight	0,5 g/m ² – 2,5 g/m ² (dry)
Printing Process	Rotogravure, Flexo printing
Appearance	The dried layers of the coloured inks are glossy and transparent. The white inks have a good opacity
Odour	The layers are nearly odourless printed with the recommended film thickness and after sufficient drying
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol
Sterilization	Not intended for sterilization

PRINTING INKS

SERIES 61

The **Series 61** is a printing ink series, which is designed for printing on a wide range of flexible packaging films, primarily for food packaging. It is predominantly used for reverse printing with extrusion lamination and sterilization, e.g. for stand-up pouches which are sterilized after filling and closing. It is based mainly on polyurethane technology.

PROPERTIES

- Laminates suitable for pasteurization and sterilization up to 135 °C during 1 hour
- Optimized for use with extrusion lamination
- Low migration
- Contains no migrating plasticizers, no acrylates, no cellulose nitrate and no chlorine based binders such as PVC or PVdC

ADVANTAGES

- Particularly optimized for reverse printing with excellent lamination bond strength
- Excellent tape adhesion on many film types
- Very fast solvent release, causing very low residual solvents
- Very low migration

TECHNICAL DETAILS

Substrates	Polypropylene films with corona pre-treatment Polyester films with corona pre-treatment
Coating Weight	1,0 g/m ² – 3,0 g/m ² (dry)
Printing Process	Rotogravure, Flexo printing
Appearance	The dried ink layers are transparent with high colour strength and medium gloss. Their pigments and binders are optimized for smallest possible colour changes effected by heat, for example by sterilising or heat sealing
Odour	The layers are nearly odourless printed with the recommended film thickness and after sufficient drying
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol
Sterilization	up to 135 °C during 1h
Adhesion	Excellent tape adhesion on most films. OPP, CPP, PET and OPA foils need a good corona pretreatment. In critical cases the adhesion can be increased by using a primer like L:297:23



WHITE INKS

56-040	WHITE INKS For Series 56	Printing ink of the Series 56, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging.
22-046	WHITE INKS For Series 22	Printing ink of the series 22, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging.
23-000	WHITE INKS For Series 23	Printing ink of the series 23, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging.
23-005	WHITE INKS For Series 23	Printing ink of the series 23, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging.
29-000	WHITE INKS For Series 29	Optimized for printing on a wide range of flexible packaging films, primarily for food packaging
61-000	WHITE INKS For Series 61	Printing ink of the series 23, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging.

WHITE INKS for SERIES 56

56-040

56-040 White is a printing ink of the Series 56, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging. It is used predominantly for printing on the surface of the packaging film, but can be used also for reverse printing with lamination, if a moderate to good lamination bond strength is sufficient.

PROPERTIES

- Moderate to good lamination bond strength
- Fast solvent release, which causes low residual solvents
- Low migration
- Contains no migrating plasticizers and no chlorine based binders such as PVC

ADVANTAGES

- Very high gloss, high opacity
- Very good scratch resistance
- Very good adhesion on many film types
- Best suitability for surface printing

TECHNICAL DETAILS

Substrates	Polyethylene, corona pre-treated, Polypropylene, corona pre-treated, Aluminium with primer coating, Paper	
Coating Weight	1,0 g/m ² – 3,0 g/m ² (dry)	
Printing Process	Rotogravure, Flexo printing	
Appearance	White liquid	
Odour	Characteristic, like solvents	
Solid content	49,9 % – 52,9 %	
Viscosity	35 s – 45 s flow cup DIN 53211, 4 mm, 20 °C	
Solvents	Accelerator	Ethyl acetate
	Thinner	Ethanol
	Retarder	Ethoxy propanol, methoxy propanol
Opacity	64 %	

WHITE INKS for SERIES 22

22-046

22-046 White is a printing ink of the series 22, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging. It is used predominantly for reverse printing with lamination and sterilization, e.g. for stand-up pouches which are sterilized after filling and closing.

PROPERTIES

- Very low residual solvent level
- Very low migration
- Contains mainly poly urethane as a binder
- Contains no migrating plasticizers, no acrylates, no cellulose nitrate and no chlorine based binders such as PVC

ADVANTAGES

- Excellent tape adhesion on many film types
- Particularly optimized for reverse printing with excellent lamination bond strength
- Very fast solvent release, causing very low residual solvents

TECHNICAL DETAILS

Substrates	Plastic packaging films with corona pre-treatment: Polyethylene, Polypropylene, Polyester, Polyamide Plastic packaging films with functional coatings: SiO _x , AlO _x , EVOH, PVOH, PVdC and acrylic coatings Paper	
Coating Weight	1,0 g/m ² – 3,0 g/m ² (dry)	
Printing Process	Rotogravure, Flexo printing	
Appearance	White, viscous liquid	
Odour	Characteristic, like solvents, mainly ethanol and ethoxy propanole	
Solid content	42,8 % – 45,8 %	
Viscosity	30 s – 40 s flow cup DIN 53211, 4 mm, 20 °C	
Solvents	Accelerator	Ethyl acetate
	Thinner	Ethanol
	Retarder	Ethoxy propanol
Opacity	60 %	

WHITE INKS for SERIES 23

23-000

23-000 White is a printing ink of the series 23, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging. It is used predominantly for reverse printing with lamination and sterilization, e.g. for stand-up pouches which are sterilized after filling and closing.

PROPERTIES

- Very low residual solvent level
- Very low migration
- Contains mainly poly urethane as a binder
- Contains no migrating plasticizers, no acrylates, no cellulose nitrate and no chlorine based binders such as PVC

ADVANTAGES

- Excellent tape adhesion on many film types
- Particularly optimized for reverse printing with excellent lamination bond strength
- Very fast solvent release, causing very low residual solvents

TECHNICAL DETAILS

Substrates	Plastic packaging films with corona pre-treatment: Polyethylene, Polypropylene, Polyester, Polyamide Plastic packaging films with functional coatings: SiO _x , AlO _x , EVOH, PVOH, PVdC and acrylic coatings Paper
Coating Weight	1,0 g/m ² – 3,0 g/m ² (dry)
Printing Process	Rotogravure, Flexo printing
Appearance	White, viscous liquid
Odour	Characteristic, like solvents, mainly ethanol and ethoxy propanol
Solid content	42,8 % – 45,8 %
Viscosity	36 s – 46 s flow cup DIN 53211, 4 mm, at 20 °C
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol
Opacity	58 %

WHITE INKS for SERIES 23

23-005

23-005 White is a printing ink of the series 23, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging. It is used predominantly for reverse printing with lamination and sterilization, e.g. for stand-up pouches which are sterilized after filling and closing.

PROPERTIES

- Very low residual solvent level
- Very low migration
- Contains mainly poly urethane as a binder
- Contains no migrating plasticizers, no acrylates, no cellulose nitrate and no chlorine based binders such as PVC

ADVANTAGES

- Excellent tape adhesion on many film types
- Particularly optimized for reverse printing with excellent lamination bond strength
- Very fast solvent release, causing very low residual solvents
- High opacity

TECHNICAL DETAILS

Substrates	Plastic packaging films with corona pre-treatment: Polyethylene, Polypropylene, Polyester, Polyamide Plastic packaging films with functional coatings: SiO _x , AlO _x , EVOH, PVOH, PVdC and acrylic coatings Paper
Coating Weight	1,0 g/m ² – 3,0 g/m ² (dry)
Printing Process	Rotogravure, Flexo printing
Appearance	White liquid
Odour	Characteristic, like solvents, mainly ethanol and ethoxy propanol
Solid content	48,8 % – 51,8 %
Viscosity	32 s – 42 s flow cup DIN 53211, 4 mm, at 20 °C
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol
Opacity	63 %

WHITE INKS for SERIES 29

29-000

29-000 White is optimized for printing on a wide range of flexible packaging films, primarily for food packaging.

PROPERTIES

- Suitable for frontal and reverse printing
- Low residual solvents
- Low migration, therefore especially suitable for food packaging
- Free of migrating plasticizers, acrylates, and chlorine based binders such as PVC and PVdC

ADVANTAGES

- Very good tape adhesion and lamination bond strength on various film types
- High colour strength and high gloss
- Good rub and scratch resistance

For special applications some limitations should be observed:

- 29 White is not suitable for the sterilization with boiling water or water vapour
- If 29 White, printed on the outside of a packaging, is strongly exposed to water or moisture, for instance in deep-frozen food, a water resistant overprint varnish should be applied

TECHNICAL DETAILS

Substrates frontal printing	Plastic packaging films with corona pre-treatment: PET, OPA, OPP, cPP, PE Plastic packaging films with functional coatings: AlO _x , EVOH, PVdC and acrylic coatings Aluminium with primer layer, Paper
Substrates reverse printing	Plastic packaging films with corona pre-treatment: PET, OPA, OPP, cPP Plastic packaging films with functional coatings: AlO _x , EVOH, PVdC and acrylic coatings
Coating Weight	1,5 g/m ² – 3,0 g/m ² (dry)
Printing Process	Rotogravure, Flexo printing
Appearance	White liquid
Odour	The layers are nearly odourless printed with the recommended film thickness and after sufficient drying
Solid content	45,2 % – 48,2 %
Viscosity	30 s – 40 s flow cup DIN 53211, 4 mm, 20 °C
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol
Opacity	61 %

WHITE INKS for SERIES 61

61-000

61-000 White is a printing ink of the series 23, which is intended for printing on a wide range of flexible packaging films, mainly for food packaging. It is used predominantly for reverse printing with lamination and sterilization, e.g. for stand-up pouches which are sterilized after filling and closing.

PROPERTIES

- Very low residual solvent level
- Very low migration
- Contains mainly poly urethane as a binder
- Contains no migrating plasticizers, no acrylates, no cellulose nitrate and no chlorine based binders such as PVC

ADVANTAGES

- Excellent tape adhesion on many film types
- Particularly optimized for reverse printing with excellent lamination bond strength
- Optimized for use with extrusion lamination
- Very fast solvent release, causing very low residual solvents

TECHNICAL DETAILS

Substrates	Plastic packaging films with corona pre-treatment: Polyethylene, Polypropylene, Polyester, Polyamide Plastic packaging films with functional coatings: SiO _x , AlO _x , EVOH, PVOH, PVdC and acrylic coatings Paper
Coating Weight	1,0 g/m ² – 3,0 g/m ² (dry)
Printing Process	Rotogravure, Flexo printing
Appearance	White liquid
Odour	Characteristic, like solvents, mainly ethanol and ethoxy propanol
Solid content	41,5 % – 44,5 %
Viscosity	30 s – 40 s flow cup DIN 53211, 4 mm, at 20 °C
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol
Opacity	56 %

SILVER AND GOLD INKS

TS-3030	HIGH GLOSS SILVER	Solvent based rotogravure metallic ink to obtain mirror effects on films. With TS-3030 it is possible to achieve mirror effects in reverse printing and highest brilliance in surface printing with excellent opacity.
TS-2020	HIGH GLOSS SILVER	Solvent based rotogravure metallic ink to obtain mirror effects on films and very high gloss on coated cardboard materials. With TS-2020 it is possible to achieve mirror effects in reverse printing and highest brilliance in surface printing with excellent opacity.
TS-37-29	SILVER	Solvent based metallic ink based for printing ink series 29 for printing on a variety of flexible packaging films, mainly for food packaging.
TS-135-22	SILVER	Glossy metallic ink based on printing ink series 22. TS-135-22 Silver cannot be used for surface printing applications but is intended for reverse printing with lamination and sterilization.
TGR-203-22	GOLD	Metallic ink for printing on flexible packaging plastic films or on paper. It is based on bronze pigments and has a high gloss on smooth surfaces. Its composition is based on the printing ink series 22 intended for reverse printing with lamination and sterilization.
TM-347-29	GOLD	Solvent based metallic ink intended for printing on a variety of flexible packaging films, mainly for food packaging. It is based on aluminium platelets and coloured organic pigments. Its main characteristic is a high gloss on smooth surfaces.

HIGH GLOSS SILVER TS-3030

TS-3030 High Gloss Silver is a solvent based rotogravure metallic ink to obtain mirror effects on films. With TS-3030 it is possible to achieve mirror effects in reverse printing and highest brilliance in surface printing with excellent opacity.

PROPERTIES

- Suitable for different films/substrates
- Mirror effect silver
- Suitable for flexo printing and rotogravure
- Not laminatable

ADVANTAGES

- Very low residual solvents
- Ultra high gloss

TECHNICAL DETAILS

Substrates	Suitable for films, e.g. self-adhesive labels and flexible packaging
Coating Weight	0,5 g/m ² dry
Printing Process	Reverse printing on transparent films, surface printing on transparent and opaque films
Appearance	Silver metallic liquid
Odour	Solvents
Solid content	4,5 - 7,5 %
Viscosity	25 - 35 s, (flow cup DIN 53211, 4 mm, 20 °C)
Solvents	Accelerator -
	Thinner Ethanol isopropanol
	Retarder Ethoxy propanol

HIGH GLOSS SILVER TS-2020

TS-2020 High Gloss Silver is a solvent based rotogravure metallic ink for mirror effects on films and very high gloss on coated cardboard materials. With TS-2020 it is possible to achieve mirror effects in reverse printing and highest brilliance in surface printing with excellent opacity.

PROPERTIES

- Especially for paper and cardboard printing but also suitable for printing on plastic films
- Suitable for printing flexo printing or rotogravure
- Not laminatable

ADVANTAGES

- Monosolvent ink (ethylacetate)
- Ultra high gloss

TECHNICAL DETAILS

Substrates	Films for e.g. self-adhesive labels and flexible packaging, paper and cardboard
Coating Weight	0,5 g/m ² dry
Printing Process	Reverse printing on transparent films, Surface printing on transparent and opaque films
Appearance	Silver metallic liquid
Odour	Of solvents, mainly ethyl acetate
Solid content	4,9 - 7,9 %
Viscosity	20 s – 40 s (flow cup DIN 53211, 4 mm, 20 °C)
Solvents	Accelerator -
	Thinner Ethyl acetate
	Retarder n-propyl acetate

SILVER TS-37-29

TS-37-29 Silver is a solvent based metallic ink for printing on a variety of flexible packaging films, mainly for food packaging.

PROPERTIES

- High metallic gloss on smooth surfaces through aluminium platelets
- Low migration
- Low residual solvents
- Suitable for reverse printing
- Suitable for frontal printing together with a water resistant overprint varnish where appropriate
- Free of migrating plasticizers, acrylates, and chlorine based binders such as PVC and PVdC

ADVANTAGES

- High gloss and brilliance on smooth surfaces
- Good tape adhesion and lamination bond strength on various film types
- Good hiding power
- Good printability
- Good rub and scratch resistance

TECHNICAL DETAILS

Substrates	Plastic packaging films with corona pre-treatment: PET, OPA, OPP, cPP, PE Plastic packaging films with functional coatings: AlO _x , EVOH, PVdC and acrylic coatings Aluminium with primer layer, Paper
Coating Weight	1,5 g/m ² – 3,0 g/m ² (dry)
Printing Process	Rotogravure, Flexo printing
Appearance	Glossy, silver liquid
Odour	Mainly like ethanol and methoxy propanol
Solid content	28,6 % – 31,6 % by weight
Viscosity	60 s – 70 s, flow cup DIN 53211, 4 mm, 20 °C
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol

SILVER TS-135-22

TS-135-22 Silver represents an especially developed glossy metallic ink based on printing ink series 22. As with all metallic inks the substrate has an influence on the final result. Uneven substrates often cause poor pigment orientation resulting in inferior brilliance. TS-135-22 Silver cannot be used for frontal printing applications.

PROPERTIES

- Especially developed for reverse printing on various foils
- Consists of chlorine free binders

ADVANTAGES

- Excellent printing properties
- Very fast solvent release, if appropriate substrates are used

TECHNICAL DETAILS

Substrates	Polypropylene oriented and co-extruded, pre-treated Polyethylene, pre-treated Polyester, pre-treated Polyamide oriented, untreated or Corona pre-treated
Coating Weight	1,5 - 3,0 g/m ² (dry)
Printing Process	Flexo- or rotogravure printing
Appearance	Glossy silver liquid
Odour	Mainly ethyl acetate and ethanol
Solid content	28,2 % – 31, 2%
Viscosity	100 - 120 mPas, plate/cone viscosimeter at 20 °C
Solvents	Accelerator Ethylacetate Thinner Ethanol Retarder ethoxy propanol

GOLD

TGR-203-22

TGR-203-22 Gold is a metallic ink for printing on flexible packaging plastic films or on paper. It is based on bronze pigments and has a high gloss on smooth surfaces. Its composition is based on the printing ink series 22.

PROPERTIES

- Very low residual solvent level
- Very low migration
- Contains mainly poly urethane as a binder
- Contains no migrating plasticizers, no acrylates, no cellulose nitrate and no chlorine based binders such as PVC

ADVANTAGES

- Excellent tape adhesion on many film types
- Particularly optimised for reverse printing with excellent lamination bond strength
- Very fast solvent release, leading to very low residual solvents

TECHNICAL DETAILS

Substrates	Plastic packaging films with corona pre-treatment: Polyethylene, polypropylene, polyester, polyamide Paper, other films with functional coatings after
Coating Weight	1,5 g/m ² – 3,0 g/m ² (dry)
Printing Process	Rotogravure, flexo printing
Appearance	Gold-coloured liquid
Odour	Ethanol and ethoxy propanol
Solid content	37,9 - 40,9 %
Viscosity	100 – 130 mPas, plate/cone viscosimeter at 20 °C
Solvents	Accelerator Ethyl acetate Thinner Ethanol (ethyl alcohol) Retarder Ethoxy propanol

GOLD

TM-347-29

TM-347-29 Gold is a solvent based metallic ink intended for printing on a variety of flexible packaging films, mainly for food packaging. It is based on aluminium platelets and coloured organic pigments. Its main characteristic is a high gloss on smooth surfaces.

PROPERTIES

- High metallic gloss on smooth surfaces through aluminium platelets
- Low migration
- Low residual solvents
- Suitable for reverse printing
- Suitable for frontal printing together with a water resistant overprint varnish where appropriate
- Based primarily on polyurethane and cellulose nitrate
- Free of migrating plasticizers, acrylates, and chlorine based binders such as PVC and PVdC

ADVANTAGES

- Good tape adhesion and lamination bond strength on various film types
- Good hiding power
- Good printability
- Good rub and scratch resistance

TECHNICAL DETAILS

Substrates	Paper or cardboard PE, corona pre-treated, OPP, corona pre-treated or with primer Aluminium with primer
Coating Weight	1,5 g/m ² – 3,0 g/m ² (dry)
Printing Process	Rotogravure or flexo printing, Surface printing
Appearance	Glossy, gold-colored liquid
Odour	Ethanol and methoxy propanol
Solid content	32,9 % – 35,9 %
Viscosity	42 s – 52 s, flow cup DIN 53211, 4 mm, 20 °C
Solvents	Accelerator Ethyl acetate Thinner Ethanol Retarder Ethoxy propanol

