

Technical Information

60.M.058 | Water-based Liquid Systems | Metallic Inks, Pearlescent Inks



ACRYLAC®

GOLD

Water-based 1-component and 2-component gold inks

Properties

Gold inks for offset printing applications with coating unit. Double coating unit recommended, see also "Processing Advice".

ACRYLAC Gold – 2-Component-System	Pigment Paste	Binder
Rich-Gold	57MET7030	57MET7001
Rich-Pale-Gold	57MET7040	
Pale-Gold	57MET7050	
ACRYLAC Gold – 1-Component-System	Ready made Ink	
Rich-Gold	57MET7201	
Rich-Pale-Gold	57MET7202	
Pale-Gold	57MET7203	

ACRYLAC GOLD	ready-to-print ink
Brilliance	
Opacity	
Rub resistance	
Drying	
Runnability	

■ = positive rating point on a scale from zero to max. ten points for highest value / best suitability

Property / Suitability	Guide value	Test condition / Remarks
Mass density		+/- 0,05
Pigment Paste	3,9 g/cm ³	
Binder	1,05 g/cm ³	
Ready made Ink	1,5 g/cm ³	
pH-value (Ready made Ink)	7,5 – 8,5	
Viscosity (Ready made Ink)	35 – 55 s	cup drain time in ref. to DIN 53211, Ø 4 mm, 20°C
Hot-foil embossing capability *	no	
Applicable double-sided *	no	
UV-coatable *	no	Recommendation: production test
Glueable *	no	Recommendation: keep glue flaps free of coating
Block-sealable ¹	yes	PP-film, uncoated, at 130°C / 1 s / 10 kPa.

The data provided are typical values but do not represent a binding specification.

*) Further information can be taken from the following pages, under the headline „Notes about Coating Properties on the Printed Sheet“

1) Referring to seal-strength we recommend a pre-test with the exact material used in the print run.

Acrylate coated films are inept for sealing.

Storage/Handling

- store in unopened, original container under cool and frost free conditions (0° C – 30° C)
- shelf life
 - **Pigment paste and binder** :
original closed 6 months shelf life, use as soon as possible after opening
 - **Ready made ink**
In original packaging / freshly mixed 3 months shelf life, use as soon as possible after opening
- Ink that has already been in the printing press should be processed as quickly as possible, as thickening and crust formation can quickly occur.
- viscosity can increase during storage; check before use; dilute with 1-5% water if required
- **Stir Binder and ready-to-print ink well before use**; check homogeneity

Processing instructions 2-component system

- The delivery quantities of paste and binder are filled to be mixed together completely.
1 container of paste and 1 container of binder together result in 22.5 kg of ready-to-print gold ink.
 - Package pigment paste: 10 kg
 - Delivery container Binding agent 12.5 kg
- Recommended mixing equipment:
 - Powerful electric drill with stirring attachment (mortar stirrer / paint stirrer)
 - 30 l bucket, hg bin 531
- mixing instructions
 - Stir ACRYLAC Binder thoroughly
 - Place ACRYLAC gold paste in a 30kg bucket and add approx. 4kg binder.
 - Stir thoroughly for approx. 10 minutes until a homogeneous, smooth paste is obtained.
 - add another 4 kg of binder, mix thoroughly
 - add remaining binder, stir thoroughly
 - Attention: from now on do not stir too much, do not whip foamy.
 - to remove stirred air, leave the mixed gold covered for a few hours, and stir carefully from time to time
 - Viscosity depending on colour should be approx. 30 - 60s. (Rich gold rather thin, pale gold rather thick)
 - For pale gold, add 1-2% water if necessary to reach best viscosity for printing.
(see below)

Processing Advice

- Recommended printing viscosity approx. 30-50s/4mm DIN cup/20°C
- ACRYLAC Gold thickens rapidly at higher temperatures. A cooled storage tank with slow-running agitator is strongly recommended for stable printing of larger runs. Optimum colour temperature: 10-20°C.
- ACRYLAC GOLD should only be printed on preprinted ACRYLAC dispersion varnishes, to achieve optimum brilliance and good rub resistance.
- a significant increase of the abrasion resistance can be achieved by overpainting. A significant loss of brilliance is to be expected.
- For a high-quality print image, the contact pressure of the anilox roller should be as low as possible - "kiss print".
- Avoid prolonged pumping over without ink removal
- Stacking temperatures above 35 °C can lead to blocking
- do not mix with other products
- Clean the lacquer circuit thoroughly before use. Avoid mixing of gold with washing water.

Appropriate Press Configuration for Converting

- Sheet-fed offset presses with double coating unit (chambered doctor blade and anilox roller)
Coating unit 1 : ACRYLAC protective coating (preferably glossy, matt reduces the brilliance of the gold ink)
Coating unit 2 : ACRYLAC Gold
- Recommended anilox roller for gold , 7-10 cm³/m² (hexagonal engraving) depending on sujet, pre-test recommended
- soft printing forms are recommended: Photo polymer plate (e.g. Nyloflex Gold LA, Gold A), lasered EPDM printing blankets (e.g. Conti)
- hot-air drier with steam-extraction

Suitable Substrates

Paper and cardboard, coated, absorbent

Suitable Printing Inks

- alkali resistant acc. to ISO 2836 (Magenta usually suitable, despite its missing resistance)
- resistance against alcohol and solvent mixture recommended
- changes in colour/hue of the used printing inks can occur, if the pigments therein are featuring insufficient resistance properties

Auxiliaries

Thinning: Water / Cleaning: 10T0145 / Defoaming: 10MGA0423

General Information

In case potentially disruptive influences can occur, such as those originating from packaging contents or external influences (e.g. solvents, detergents, grease, moisture, etc.), the suitability of the coating needs to be double-checked through appropriate testing. For consistent print results, we recommend periodical cleaning of the anilox rollers.

Notes about Coating Properties on the Printed Sheet

- the final surface characteristics are not shown before complete drying of ink and coating
- coated areas are sealed and wet glue takes notably longer to set there, compared to setting on the uncovered substrate surface; our recommendation: keep glue flaps free of coating
- ACRYLAC Gold is not splitting resistant, gluing is not recommended.
- Subsequent finishing with UV varnish and hot foil stamping is not recommended as poor adhesion is achieved.
- The indicated fastnesses are determined under standardized test conditions. The values may vary depending on printed product and ambient conditions.
- Suitability for two-sided printing can be reduced by the substrate, high ink coverage and slow-setting inks. In these cases we recommend a sufficient airing and drying times before perfecting

Information about Printing Food Packaging

This inks are not of the "low-migration" type and is not recommended for food packaging printing.

Labelling/Safety

See material safety data sheet

How supplied

Ready-to-print ink:	25-kg	plastic bucket
Binder:	12,5-kg	tin bucket
Pigment paste:	10-kg	tin bucket