

# Technical Information

60.C.094 | Water-based Liquid Systems | Coatings, Lacquers, Varnishes, Primers

ACRYLAC®

## MGA HIGH GLOSS ULTRA S 58MGA1600

Protective coating with excellent gloss

### Properties

Water-based low migration coating for offset printing applications with coating unit.

In combination with MGA printing inks, suitable for the manufacturing of food packaging

ACRYLAC – MGA HIGH GLOSS ULTRA S	58MGA1600
Gloss	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Rub resistance	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Blocking resistance	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Drying	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
COF (dyn.)	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
■ = 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	1,05 g/cm <sup>2</sup>	+/- 0,05
pH-value	7,5 – 8,5	
Viscosity (upon delivery)	35 – 45 s	cup drain time in ref. to DIN 53211, Ø 4 mm, 20°C
Hot-foil embossing capability *	yes	
Applicable double-sided *	no	
UV-coatable *	no	Recommendation: production test
Glueable *	yes	Recommendation: keep glue flaps free of coating
Block-sealable <sup>1</sup>	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 12 months, if unopened; use quickly after opening original container
- viscosity can increase during storage; check before use; dilute with 1-5% water if required
- **stir well before use**; check homogeneity

## Processing Advice

- recommended application rate: 4 – 6 g/m<sup>2</sup> (wet)
- excessive pumping without consumption on press must be avoided
- delivery stack temperatures above 35°C can lead to blocking
- do not mix with different coating products
- clean coating circuit thoroughly; avoid contamination of coating with rinse residues

### Appropriate Press Configuration for Converting

- sheet-fed offset press with coating unit (chambered blade and anilox roller)
- hot-air blow 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: 10T0245 / 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 regular in-depth cleaning of the anilox rollers.

## Notes about Coating Properties on the Printed Sheet

- the final surface properties have not established until complete drying of ink and coating
- the glueability is also influenced by substrate, ink and glue.
- 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
- for finishing, metallic inks have to be tape resistant
- finishing with UV-coating or hot-foil stamping requires a stable substrate surface
- adhesion and scratch resistance of the UV-coating or hot foil stamping can vary, depending on the substrate surface quality, the ink, and/or the applied UV-coating/hot-foil
- the values for CoF and block-sealing resistance (if provided) are assessed under defined testing conditions. Depending on printing- and accompanying ambient conditions, the values may vary.
- suitability for two-sided printing can be reduced by the substrate, high ink coverage and slow-setting colours. In these cases we recommend a sufficient airing and drying times before perfecting

## Information about Printing Food Packaging

When handled and processed in the appropriate manner and applied in line with the recommended application rates, ACRYLAC-MGA water-based coatings, used in combination with MGA sheet-fed offset inks, enable the manufacture of food packaging that complies with the relevant legislation.

ACRYLAC-MGA water-based coatings are formulated and manufactured in compliance with the following publication issued by the European Printing Ink Association (EuPIA): the "*Good Manufacturing Practice (GMP) - Printing Inks for Food Contact Materials*".

ACRYLAC-MGA water-based coatings are formulated using only components that do not migrate or migration-capable constituents that have been evaluated for contact with foodstuffs; the specific migration limits (SMLs) are clearly undershot within the recommended application rate (Ratio: Packing/Filling: 6 dm<sup>2</sup>/kg). This also takes account of potential sources of raw material contamination (NIAS). This distinguishes them significantly from conventional, standard water-based coatings. The migration even of constituents that have been evaluated has been reduced to a minimum with ACRYLAC-MGA coatings.

A special SAP-based monitoring process ensures that mix-ups with unsuitable raw materials during formulation can be ruled out. The products are manufactured in a production area specifically designated for this purpose and in accordance with good manufacturing practice (GMP).

All raw materials used are recorded throughout the entire production process and can be tracked right back to the individual batch from which they originated.

Information required for the evaluation of finished food packaging can be found in the document entitled "Statement of Composition of ACRYLAC-MGA water-based coatings used to manufacture food packaging made of paper and board".

### Range of applications

- For printing packaging made of paper or board
  - For dry, non-fatty foodstuffs
  - For dry, fatty foodstuffs
- We recommend the use of special coatings for articles that are packaged, treated or used at increased temperatures
- The coated surfaces must not be into direct contact with foodstuffs.

## Labelling/Safety

See material safety data sheet

## How supplied

25-kg plastic bucket (hobbock)  
150-kg plastic drums  
1000-kg IBC