Technical Product Information

METALURE® UV FPG Dispersion

Article-No.:	Product Name:
027455.. 025512.. 027390..	METALURE® UV FPG 42001 Silver METALURE® UV FPG 51501 Silver METALURE® UV FPG 22001 Silver

Product description:

METALURE® UV FPG dispersions are based on stabilized leafing METALURE® (VMP or PVD) pigments pasted in acrylate monomer (TMP(EO)TA) for the formulation of stable, radical curing, one-component UV/LED Flexo printing inks for food packaging application.

- All Ingredients are either low migration or meet the specific migration limits for evaluated substances under selected test conditions.
- Raw materials are selected with preference for high purity materials.
- White spirit and mineral oil are excluded from the production process of this aluminium paste.
- GMP compliant production of METALURE® UV FPG dispersions (minimized risk of cross contamination) are guaranteed.
- The formulation is specifically developed for food packaging application; under selected test conditions migration limits are undercut.

METALURE® UV FPG offer fast and simple possibilities to formulate UV curing printing inks with outstanding silver effect.

The products have not been especially developed for the formulation of inks for direct food contact.

Organoleptic properties (taint and odour):

In all cases the printed material / package has to be tested to ensure that the organoleptic properties satisfy the packaging specification.

Application:

METALURE® UV FPG is suitable for formulating UV curing Flexo printing inks on paper, board and foil for the manufacturing of food packaging (indirect contact).

As with all metallic inks, the substrate has an influence on the final result. Very absorbent or uneven substrates often cause poor pigment orientation resulting in inferior brilliance. In some cases, the use of primers to improve the substrate surface is advantageous.

In order to provide the maximum level of metallic brilliance METALURE® UV FPG dispersions are based on leafing aluminium pigments, which could limit overprintability of the finished ink. However, dependent on formulation, printing parameters and substrate, metallic UV printing inks will accept many different types of overprinting including Thermal Transfer, Hot Foil Stamping, In-Line and Off-Line overvarnishing. It's recommended to cure the metallic ink before the UV varnish is applied, to achieve optimum results.

Please test the finished inks for overprintability prior to production runs.

Product properties:

Rub resistance and lamination properties:

METALURE® UV FPG is based on a leafing metallic pigment to provide an ink with the highest level of metallic brilliance possible. Due to the leafing character of the aluminium pigments the finished ink may exhibit poor rub resistance (depending on the film weight, the substrate used and the printing speed applied).

Additional product properties:

METALURE® UV FPG	pigment size (D_{50})	pigment content	acrylate monomer	shade
22001	appr. 7 µm	20%	appr. 73%	Light
42001	appr. 10 µm	20%	appr. 73%	Bright, classic
51501	appr. 7 µm	15%	appr. 78%	Chrome-like

For specifications of our products, please refer to the technical data sheet.

Handling:

METALURE® UV FPG pigment concentrates are optimised for high metallic effects. The concentrate can stirred directly into a UV compatible binder system by using low shear stress aggregates.

Select the binder and additives carefully for your formulation with METALURE® UV as this influences the brilliance, the stability, shelf life etc. Tests prior to prior to any commercial use are necessary.

Ideally disperse the pigment concentrate properly (e.g. using a dissolver plate) in your ink formulation.
However, excessive mixing can cause mechanical breakage and attrition of its optimized particle size distribution. This can result in reduced brilliance.

Please refer to the Safety Data sheet of METALURE® UV FPG for further handling guidelines.

Cleaning recommendations:

METALURE® UV FPG products can be cleaned by using conventional UV- cleaning agents. Also with esters or ester/alcohol mixtures the uncured inks can be removed easily from the cylinders.
Please refer to the safety data sheet and the safety guidelines given.

Storage and transportation:

METALURE UV FPG concentrates should be stored at temperatures between 20°C and 25°C. Direct sunlight should also be avoided.
High temperatures can lead to gelling. Opened containers should never be exposed to direct sunlight, since this will result in a preliminary polymerisation.

Shelf life: 6 months

Important: The shelf life of the material can be greatly reduced due to various factors such as light, heat, contaminants etc.
ECKART cannot guarantee the shelf life of products which have not been stored at the recommended conditions above.

Avoid direct sunlight.

For further information or samples, please contact:

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