Frimpeks UV Curable Flexo Metallic Inks

Technical Features	Typical Analysis		Test Method:
	Gold	**Silver**	
Metal content:	≈ 35%	≈ 15 %	
Non-volatile content:	≈ 100 %	≈ 100 %	
Viscosity:	800 - 1600 mPas		Brookfield Rheometer, 20°C
Density:	≈ 1.6 g/cm³	≈ 1.1 g/cm³	

Description

- Press ready one component UV-curing metallic ink series for application in flexo printing
- Good performance on coated paper and board
- Suitable for surface treated synthetic substrates
- Ideal applications include many types packaging, labels and coating units
- Based on leafing metallic pigments

Features

- Excellent coverage
- High print clarity and trouble free flexo printing
- Good water and rub resistance

Storage

To ensure maximum stability Frimpeks Flexo Metallic UV inks should be stored in closed containers at temperatures below 25°C. Freezing and rapid temperature changes are to avoid.

Shelf Life

At least 6 months

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Application Recommendations

Frimpeks Flexo Metallic UV ink series is designed for printing on coated papers, labels, cardboards and plastic. When used on syntetic substrates prior testing for adhesion should always be done prior to printing. Due to the very small particle size of the pigments good metallic brilliance and outstanding coverage are achievable.

Frimpeks Flexo Metallic UV press ready inks are suitable for printing both narrow web and wide web. For optimum performance anilox rollers up to 400 lines/inch can be used.

UV inks are supplied at ready to print viscosity. For certain press set-ups it may be desirable to run at lower viscosity. For specific recommendations on adjusting these inks please ask your Frimpeks Representative. Any addition should be tested prior to use. Metallic printing inks tend to sedimentation due to the high specific gravity. Therefore the inks should be stirred up properly before use.

Resistance Characteristics

Due to the leafing characteristics of the Frimpeks Flexo Metallic UV inks the rub resistance and intercoat adhesion properties are limited, but could be improved by overprinting with suitable varnish.

In order to avoid color changes especially for Bronze inks avoid direct contact with chemicals. Frimpeks Flexo Metallic UV Silver inks have lightfastness values of 7 – 8 and Bronze inks -5 on the Blue Wool scale acc. DIN 54003 (1-poor, 8-excellent).

Overprintability

Leafing pigments are not ideal for overprinting as the pigment comes to the liquid/air interface of the wet ink film. This surface can be difficult to get ink and varnish to trap onto and adhere to. Overprintability should be tested prior to production.

To achieve maximum metallic effect varnishing should be avoided. For jobs that require a protective overprint varnish (OPV) keeping the film weight of the OPV to a minimum will result in the least impact on metallic effect.

Frimpeks Flexo Metallic UV inks are based on highly leafing pigments and are therefore not suited to lamination. If lamination is required modifications could be made at the design stage to improve the results obtainable.

- The metallic ink should not run off a cut edge
- The metallic ink should not run round the spine of books

It is very important that the ink is sufficiently through cured and that a non absorbent or primed substrate is used to offer the required ink substrate adhesion characteristics. Testing in a production environment is required to ensure that a satisfactory result is obtainable.

Food Contact

Frimpeks Flexo Metallic UV inks have not been formulated with low migration materials and, are therefore not recommended for use on primary food packaging or in any other applications where low migration is a requirement. These inks can however be used for secondary food packaging and packaging where a functional barrier exists between the primary packaging and the product. In all cases the printed material/package should be tested to ensure that the migration properties meet the packaging specification.

The general food packaging safety 'framework' Regulation (EC) No 1935/2004 of the European Parliament (Materials and articles intended to come into contact with food). This regulation refers specifically to food contact materials and articles rather than to inks and associated coatings. A more detailed secondary food contact declaration is available on request.

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