

GLITTER EFFECT PRODUCTS

PRELIMINARY VERSION



Technical data sheet

UV screen printing inks

1. APPLICATION FIELDS:

The two component UV Silver Glitter Products are developed for special effects in screen printing application for 983UV and 985UV ink series. For details please refer to the technical sheet of the relevant series.

Substrates may differ in their chemical structure or method of manufacture. A test for suitability must always be carried out before printing.

2. CHARACTERISTICS:

This obtainable Glitter Effect Lacquers with geometric metallic pigments are excellent in brilliance and metallic special effects.

The product UV Lacquer is constitutionally free from toxic elements and solvents. The raw materials used, meet with the limits stipulated by the EEC regulation EN 71 (Safety of Toys), part 3 (Migration of Certain Elements) of December 1994.

3. RANGE OF PRODUCTS:

3.1 Two component Glitter Lacquer:

Bronze varnish	983 UV 0003
Bronze varnish	985 UV 0003
Glitter effect, fine	360 RS 4063
Glitter effect, medium	360 RS 4064
Glitter effect, rough	360 RS 4084

Recommended mixture ratio:

10 weight parts bronze varnish : 1-3 weight part of Glitter Pigments

4. PROCESSING INSTRUCTIONS:

4.1 Thinner:

The mixed Glitter Effect Lacquer is ready to use. If further viscosity reduction is desired, UV thinner may be added.

In order to increase curing the addition of a reactive thinner is recommended.

In general, no solvent-based thinners should be used due to flammable nature of the solvents.

UV thinner (max. addition: 2 – 5 %) 983UV,985 UV 0014
Reactive thinner (max. addition: 2 – 5 %) 983UV,985 UV 0010

4.2 Stencils / Printing Equipment:

Screen printing meshes between 21-120 threads/cm (360RS4084) and 77-55 threads/cm (360RS4063 and 360RS4064) are suitable for printing.

In any case test prints and approval of the colour are generally recommended for the respective print jobs.

The Glitter UV Lacquer can be used with all flat bed screen printing machines as well as rotary screen printing machines currently used for industrial applications.

Any acrylic acid ester resistant squeegee material may be used.

4.3 Curing Conditions:

The varying UV absorption of the individual mixes results in a range of curing properties depending on the colour shade and opacity.

All Glitter UV Lacquer can be cured by the use of medium pressure mercury vapour lamps (at least 160 W/cm).

The optimum energy output is 250 - 300 Millijoule/cm². UV curing is followed by a 12 hour post curing phase after which the ink film will be fully cured and exhibits its final properties.

However, it must be noted, that low radiation intensity, excessive machine speeds or excessive film thickness can have a negative influence on the curing properties and adhesion of the ink.

Un-cured prints are considered a hazardous waste. Therefore, it is recommended to cure misprints under the UV lamp as a matter of principle. After curing, spoilage can be disposed by conventional methods and may be incinerated without causing any difficulties.

5. SHELF LIFE:

A shelf life of 6 months is guaranteed when storing the inks at 21 °C and in the original packing container. At higher storage temperatures the shelf life will be reduced.

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6. PRECAUTIONS:

UV inks may cause irritations and can increase the sensitivity of the skin, possibly leading to hypersensitivity.

Therefore, the use of disposable gloves and protective goggles is strongly recommended.

For further information on the safety, storage and environmental aspects concerning these products, please refer to the Material Safety Data Sheet (MSDS).

Additional technical information may be obtained from our staff of the Technical Application Department.

A.M. RAMP & Co. GmbH
Lorsbacher Strasse 28
D-65817 Eppstein

Tel: ++49 (0) 6198-304-0 FAX: ++49 (0) 6198-304-287
E-Mail: info@ruco-inks.com



The above statements are accurate to our best knowledge and belief. However, due to the great number of possible influences during the manufacture of the substrate and the variation in the application process we suggest that suitability testing take place under actual conditions before production. No legally binding guarantee of certain properties or of the suitability for a definite application purpose can be derived from the above information.

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