



## Technical Data Sheet

## UV screen printing inks

### 1. APPLICATION FIELDS:

Universal frost effect UV screen printing ink for the printing of flat glass.

Substrates may differ in their surface properties or method of manufacture. Therefore, a test for suitability must always be carried out before printing.

### 2. CHARACTERISTICS:

This UV screen printing ink cures under UV lamps an additional influence of heat is not necessary.

The frost effect inks UV inks are suitable for both sides of flat glass printing.

Optimal scratch resistance will be achieved after approximately 12 hours. A special product test is recommended prior to production.

The inks of the frost effect UV series are 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:

Lacquer, matt		900 UV	0240
Tinting White ( max.addition: 40%)		900 UV	1329
Frost effect	5 % tinting	900 UV	0250
frost effect	10 % tinting	900 UV	0251
frost effect	15 % tinting	900 UV	0252
frost effect	20 % tinting	900 UV	0253
frost effect	30 % tinting	900 UV	0254

### 4. ADDITIVES:

#### 4.1 Thinner:

The inks of the frost effect UV series are ready to use. If further viscosity reduction is desired, an UV thinner may be added. In order to increase curing, the addition of reactive thinner is recommended.

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

UV Thinner (max. addition: 2-5 %)	900 UV	0014
Reactive Thinner (max. addition: 2-5 %)	900 UV	0010

### 4.2 Levelling Agent:

The levelling of the ink surface can be optimised by the use of a levelling agent.

Levelling Agent (max. add.: 0,5-1 %) VM 100 VR 1297

### 5. PROCESSING INSTRUCTIONS:

#### 5.1 Stencils / Printing Equipment:

Screen printing meshes between 100-34 through 120-31,34 threads/cm (T-mesh) are suitable for printing with UV inks.

However, test prints and approval of the colour are generally recommended for the respective print jobs.

The frost effect UV series can be used with all screen-printing machines with screen printing stencils currently used for industrial applications.

Any acrylic ester resistant squeegee material may be used.

#### 5.2 Curing Conditions:

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

All colours of the frost effect UV series can be cured by the use of medium pressure mercury vapour lamps (at least 160 W/cm).

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.

Uncured 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.

### 6. CLEANING:

Screens and squeegees as well as other working materials can be cleaned with the RUCO screen cleaner 32 335. If cleaning is not performed by fully automatic cleaning equipment, protective gloves must be worn. Cleaning liquids that are contaminated with UV products should not be used for the washing of working materials that were used with conventional screen printing inks.

# FROST EFFECT

Solvents that contain UV residue are not suitable for reclamation and must be treated as a separate waste.

Universal Cleaner	UR	32 335
Cleaner for cleaning equipment	WR 100 VR	1240C
Bio degradable Cleaner	BR 100 VR	1272

## 8. SHELF LIFE:

A shelf life of 12 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.

## 9. 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.

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