

SERIES 31VC



Technical Data Sheet

Screen printing Inks

1. APPLICATION FIELDS:

Versatile one component ink for screen printing on plasticized and rigid PVC, acrylic, polycarbonate and polystyrene.

Substrates may differ in their chemical structure or method of manufacture. A test for suitability must always be carried out before printing. Antistatic, Mould Release Agents and Slip Additives may have negative effects on adhesion, and should be detected and removed prior to printing.

2. CHARACTERISTICS:

This with matt or semiglossy appearance, physically drying screen printing ink exhibits good mechanical and chemical resistance, as well as a good flexibility. The colour shades of 31 VC are suitable for vacuumforming and welding, light fast, weather resistant and high opacity. A special product test is recommended prior to production.

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. The inks of this series may also be used for printing on the outside of food packaging.

3. RANGE OF COLOURS:

The basic ink mixing system consists of 12 basic colours and may be used for the mixing of a wide colour shade range. Field proven mixing formulations exist for Pantone®, HKS, RAL, NCS, etc.

3.1 Basic colours:

3.1.1. Standard ink series:

Light Yellow	G 1	31VC2087
Medium Yellow	G 2	31VC2118
Orange	G 3	31VC3200
Light Red	G 4	31VC3259
Red	G 5	31VC3202
Pink	G 6	31VC3203
Violet	G 7	31VC5176
Blue	G 8	31VC5177
Green	G 91	31VC6112
Brown	G 10	31VC8059
White	G 11	31VC1037
Black	G 12	31VC9026
Clear Base		31VC011

3.2 Special Products:

3.2.1 High Opacity Formulations:

White	(high opacity)	31VC102
Black	(high opacity)	31VC9026

3.3 Euro-Colours / 4-Colour Process Printing Inks:

For 4-colour process printing according to DIN 16538, 4 Euro-basic colours are available:

Euro-Yellow	31VC2075
Euro-Magenta	31VC3177
Euro-Cyan	31VC5157
Halftone Black	31VC9026

4. ADDITIONAL PRODUCTS:

Raster paste can be added to reduce "Dot Gain" and to achieve sharper dots.

Overprinting Lacquer	31VC013
Raster Paste (max. addition: 10 %)	31VC0017

5. ADDITIVES:

5.1 Thinner:

Prior to production, the screen printing ink has to be adjusted to the printing viscosity by the addition of thinner.

Thinner, very fast (addition: 15 - 25 %)	35353
Thinner, standard (addition: 15 - 25 %)	38571

5.2 Retarder

Retarder will influence the drying time of the ink under different climate conditions. Retarder VZ 35 928 is a medium drying retarder,

Retarder, standard (addition 5 - 10 %)	35928
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It must be noted that an excessive addition of retarder may negatively influence the ink transfer and bulk goods resistance, due to the slow evaporation of the retarder.

5.3 Levelling Agent:

The levelling of the ink surface can be optimised by the use of a levelling agent. It must be noted that excessive

31 VC SERIES

addition of levelling agent can have a negative influence on the overprintability.

Levelling Agent (max. add.: 0,5-1 %) 100VR133

6. PROCESSING INSTRUCTIONS:

6.1 Stencils/Printing Equipment:

The inks of 31 VC series can be printed with all commonly available screen printing meshes. They can be used with all screen printing machines for printing speeds of about 1.800 – 3.600 pieces/h with screen printing stencils currently used for industrial applications. The colour mixing formulations are based on a 120-34 threads/cm mesh.

6.3 Curing Conditions:

The inks of 31 VC series are physically dried through the evaporation of solvent within 5 min. at 20° C. While multi-colour printing we recommend an intermediate drying process by infrared lamps or hot air blower. The final drying will be achieved at 60 ° C during 60 seconds.

7. CLEANING:

Screens and squeegees and 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.

Universal Cleaner	32 335
Cleaner for cleaning equipment	100VR1240C
Bio degradable Cleaner	100VR1272

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:

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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