

# T 00 SERIES

## PRELIMINARY VERSION



### Technical Data Sheet

### Screen and Pad printing inks

#### 1. APPLICATION FIELDS:

Versatile two component ink for screen printing and pad printing on rubber and soft touch substrats .

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 glossy, physically drying and chemical reactive screen printing ink exhibits very high mechanical and chemical resistance, as well as a very good flexibility. The colour shades of T 00 are weather resistant and guarantee 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.

#### 3. RANGE OF COLOURS:

White T 00 - 1008

Other colours can be elaborated on request.

#### 4. ADDITIVES:

##### 4.1 Thinner:

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

Thinner, very fast (addition: 15 - 25 %) VS 35 353  
Thinner, standard (addition: 15 - 25 %) VD 38 571

##### 4.2 Retarder

Retarder will influence the drying time of the ink under different climate conditions. Retarder VZ 35 928 is a medium drying retarder, VZ 34 392 is a very slow drying retarder. While using the ink under extreme climate conditions (Temperature higher than 28°C) it is recommended to use the retarder VZ 35 928 as a thinner to adjust the viscosity of the ink.

Retarder, standard (addition 5 – 10 %) VZ 35 928  
Retarder, slow (addition max. 5 %) VZ 34 392

It must be noted that an excessive addition of retarder may negatively influence the ink transfer and bulk good resistance, due to the slow evaporation of the retarder.

Retarder VZ 34 392 should only be used in conjunction with thinner VD 38 571 or retarder VZ 35 928.

##### 4.3 Hardener:

Hardener 37172 is the standard hardener. The mixing ratio is 5 parts of ink with 1 part of hardener. At room temperature of 20° C a pot life of approximately 8 hours can be achieved.

Hardener, standard 37172  
5 parts of ink, with 1 part of hardener

Please note that the final chemical and physical resistance of the inks of series T 00 is only achieved after 36 hours at room temperature of 20° C.

During processing and drying of the printed ink, the temperature should not be lower than 15 ° C otherwise the chemical crosslinking is stopped. Also avoid high humidity for several hours after printing as the hardener is sensitive to humidity. While using hardener please note that multi-colour jobs have to be printed during 24 hours. The completely dried ink can not be overprinted.

##### 4.4 Levelling Agent:

The levelling of the ink surface can be optimised by the use of a levelling agent. It must be noted that excessive addition of levelling agent can have a negative influence on the overprintability.

Levelling Agent (max. add.: 0,5-1 %) VM 100 VR 133

#### 5. PROCESSING INSTRUCTIONS:

##### 5.1 Printing Equipment:

###### 5.1.1 Screen Printing

The inks of T00 series can printed with all commonly available screen printing meshes. They can be used with all screen printing machines with printing speeds of about 800 – 1.200 pieces/h with screen printing stencils currently used for industrial applications. The colour mixing formulations are based on a 120-34 threads/cm mesh.

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## 5.1.2 Pad Printing:

The T 00 series can be used with all pad printing machines with clichés and pads currently used for industrial applications. However, it has to be noted that type and etching depth of the cliché, mould and hardness of the pad, the adjustment of the ink (addition of thinner and/or retarder) as well as printing speed may influence the printing result.

## 5.2 Curing Conditions:

The inks of T 00 series are physically drying through the evaporation of solvent within 3 hours at room temperature. 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 10 minutes.

## 5.3 Post treatment:

The final characteristics will be achieved by drying in oven with temperature 80-100 °C for 30 minutes.

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

## 7. 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.

## 8. 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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