



# SERIES T35



## Technical Data Sheet

## Pad Printing Inks

### 1. APPLICATION FIELDS

One component ink for pad printing on

- ABS (Acrylonitril-Butadiene-Styrene)
- Acrylic Glass
- SAN (Styrene-Acrylonitril)
- PS (polystyrene).

This pad printing ink series is especially designed for printing onto toys. Provided they are printed in a proper and professional way, the printing inks of series **T35** can also be applied to the non food contact surface of food packaging materials and articles.

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

### 2. CHARACTERISTICS

This physically drying glossy pad printing ink exhibits good mechanical and medium chemical resistance as well as a good flexibility.

The T35 series is constitutionally free of

- phthalates, halogens and BPA as well as cyclohexanone, butyl glycolate and aromatic solvents

The colour shades of T35 are light fast, weather resistant and guarantee high opacity.

The T35 series can be printed with fast drying units up to 4000 pieces/ hour.

The used raw materials comply with the limits of metal elements stipulated by the actual EEC regulation *EN 71-3 (Safety of Toys), part 3* (Migration of Certain Elements).

For Gold- and Silver inks it is recommended to proof if the thresholds for aluminum, copper and zinc are respected.

The products of T35 meet the requirements of Directive 2009/ 48/ EC (TSD) -on the safety of toys.

### 3. RANGE OF COLOURS

The basic ink mixing system consists of 9 basic colours and may be used for the mixing of a wide colour shade range.

A chloric free green pigment is not available, therefore we can not offer the basic ink green.

Field proven mixing formulations exist for Pantone®, HKS, RAL, NCS, etc.

### 3.1 Basic colours

Light Yellow	M 1	T35-2287
Medium Yellow	M 2	T35-2288
Orange	M 3	T35-3625
Red	M 5	T35-3626
Pink	M 6	T35-3627
Violet	M 7	T35-5604
Blue	M 8	T35-5605
White	M 11	T35-1061
Black	M 12	T35-9053
Verschnitt	M 0	T35-0027

### 3.2 Special Products

High Opacity Formulations:

White (high opacity)	T35-1062
Black (high opacity)	T35-9055

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

For 4-colour process printing 4 Euro-basic colours are available:

Euro-Yellow	T35-2289
Euro-Magenta	T35-3629
Euro-Cyan	T35-5606
Halftone Black	T35-9054

### 3.4 Bronze Colours

Silver	T35-4187
Copper	T35-4188
Gold	T35-4189

### 4. ADDITIVES

#### 4.1 Thinner

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

Thinner, fast	(add.: 15 - 25 %)	VD 100VR1279
Thinner, standard	(add.:15 - 25 %)	VD 100VR1406
Thinner, slow	(add.: 5 – 10 %)	VD 100VR1450

#### 4.2 Retarder

Retarder will influence the drying time of the ink under different climate conditions.

Retarder, standard	VZ 100VR1445
Usage in combination with thinner: add (5-10) %	
Retarder for exclusive usage: add (15-25) %	

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. PROCESSING INSTRUCTIONS

### 5.1 Cliché/Printing Equipment/Pad

The T35 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 (screen) 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

At room temperatures (21 °C) the inks of T35 series are grip dry within 30-35 seconds. To accelerate the ink drying onto the substrate the use of hot air blower or infrared lamps is recommended. It must be noted that after heat treatment a cooling section must be installed in order to avoid that the printed parts stick together.

## 6. CLEANING

Clichés, squeegees and so on can be cleaned with the RUCO Universal cleaner 100VR1442. It must be noted that the pad does not come into contact with solvents. For the cleaning of the pad please see to the application references of the pad manufacturers. If cleaning is not performed by fully automatic cleaning equipment, protective gloves must be worn.

Universal Cleaner	UR 100VR1442
Bio degradable Cleaner	BR 100VR1272

## 7. SHELF LIFE

A shelf life of 24 months is guaranteed when storing the inks at 21 °C and in the original packing container, excluded bronze colours and effect inks (6 month). At higher storage temperatures the shelf life will be reduced.

## 8. PRECAUTIONS

For further information on 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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