

1. APPLICATION FIELDS:

One-component printing ink for pad printing on not pre-treated polypropylene (PP). Substrates may differ in their chemical structure or method of manufacture. A test for suitability must always be carried out before printing. Anti-static, 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 pad printing ink exhibits good mechanical and chemical resistance. The inks of T 25 are light fast, weather resistant and guarantee high opacity. Oil resistance can only be achieved in a limited manner. 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:

The basic ink mixing system consists of 12 basic colours and may be used for the mixing of a wide colour shade range.

3.1 Basic Colours:

Light Yellow	B 1	T 25-2003
Medium Yellow	B 2	T 25-2004
Orange	B 3	T 25-3002
Light Red	B 4	T 25-3003
Red	B 5	T 25-3004
Pink	B 6	T 25-3005
Violet	B 7	T 25-5007
Blue	B 8	T 25-5008
Green	B 91	T 25-6000
White	B 11	T 25-1001
Black	B 12	T 25-9001
Clear Base		T 25-0001

3.2 Special Products:

3.2.1 Opaque Formulations:

White	T 25-1002
Black	T 25-9002
Yellow	T 25-2005
Red	T 25-3006

4. ADDITIVES:

4.1 Thinner:

Prior to production the pad printing ink is adjusted to the printing viscosity by the addition of thinner.

Following additives are available:

Fast Thinner	(addition: 10 - 20 %)	VS 35353
Thinner	(addition: 10 - 20 %)	VD 38571

The retarder 100 VR 1379 can be used in order to achieve a medium drying retardation.

Retarder	(max. addition: 5 %)	VZ 35928
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4.2 Levelling Agent:

The levelling of the ink surface can be optimised by the use of 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
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4.3 Cleaning Agent

In some cases it may be advisable to remove dust and other impurities off the PP surface prior to printing by means of the cleaning liquid 35352 or with other suitable cleaning agents in order to enhance the adhesion properties of the ink.

Cleaning Agent	35352
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5. PROCESSING INSTRUCTIONS:

5.1 Cliché / Printing Equipment / Pad:

The T 25 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.

T 25 SERIES

5.2 Drying Conditions:

The drying properties of the pad printing ink during the printing process have a decisive meaning for the printing result.

An optimal ink transfer can be achieved if - due to solvent evaporation – a superficial drying of the ink first inside of the cliché and afterwards on the pad is guaranteed. Under these circumstances the total ink quantity will be transferred from the pad to the substrate.

At processing temperatures of more than 25° C and at low printing speeds a drying of the ink in the cliché may happen. Not all parts of the image area will be transferred.

At room temperatures (21° C) the inks of T 25 series are grip dry within 2 – 3 minutes. To accelerate the ink drying onto the substrate the use of hot air blower or infra red 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 32 335. 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	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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