

The future of UV Inks
starts here.



TECHNICAL DATA SHEET

DR1 SERIES – Dry Offset UV Ink

GENERAL OVERVIEW

The UV Dry-Offset printing is a process where the relief surface of the photopolymer transfers the ink on a blanket and subsequently the inked image on a substrate, such as polypropylene containers.

We have developed our UV dry offset inks to print on cups, pails, buckets and lids made of various types of plastics including PE, PP, PP-CP, PS, ABS, PET and PVC.

Typical applications are direct printing on containers of dairy products like yoghurt & cheese, rigid tubes for packing silicones, plastic pails for packing various types of paints & construction chemicals, egg cartons and caps for carbonated soft drinks.

1. FEATURES :

Our **ready to use** UV Dry Offset inks (**DR-0, DR-1, DR-2**) offer the following advantages:

- Low migration
- Low odor (according to DIN 1230-1)
- Free from ITX & Benzophenone free
- An optimum combination of high and uniformly dispersed pigments
- Fast curing characteristics allow low mist at fast printing speeds
- Excellent scuff resistance
- Superior ink transfer
- Outstanding colour stability
- Regular light fastness
- High light fastness (HL)

PRODUCT RANGE & RESISTANCE CHART

COLOR	LF (BWS)	ACID	ALKALI	ALCOHOL	SOAP	FAT	CODE
YELLOW	5	+	+	+	+	+	DR.1-00
MAGENTA	5	+	+	+	-	+	DR.1-03
CYAN	7	+	+	+	+	+	DR.1-06
BLACK	8	+	+	+	+	+	DR.1-07
HL YELLOW	7	+	+	+	+	+	DR.1-00-HL
HL MAGENTA	7	+	+	+	+	+	DR.1-03-HL
HL WARM RED	7	+	+	+	+	+	DR.1-14-HL
HL RUBINE	7	+	+	+	+	+	DR.1-16-HL
PANTONE BLACK	8	+	+	+	+	+	DR.1-08
OPAQUE WHITE		+	+	+	+	+	DR.1-09
TRANS. WHITE							DR.1-10
021 ORANGE	6	+	+	+	+	+	DR.1-1300
WARM RED	5	+	+	+	+	+	DR.1-1400
032 RED	5	+	+	+	+	+	DR.1-1500
RUBINE RED	5	+	+	+	+	+	DR.1-1600
RHODAMINE	7	+	+	+	+	+	DR.1-1700
PURPLE	7	+	+	+	+	+	DR.1-1800
VIOLET	7	+	+	+	+	+	DR.1-1900
072 BLUE	7	+	+	+	+	+	DR.1-20F
REFLEX BLUE	7	+	+	+	+	+	DR.1-21F
PROCESS BLUE	7	+	+	+	+	+	DR.1-22F
GREEN	7	+	+	+	+	+	DR.1-2300

1. FEATURES Cont.....

For **applications** requiring a wax / silicone free ink please order **DR-0** series inks.

For compliance with Nestle Guidance Note on Packing Inks please order **DR-2** Series.

(Curing conditions, ink applications and substrate do have an impact on final printing results, we therefore recommend to conduct a trial run and get the food packing tested and certified by a third-party audit).

2. CURING:

DR-1 inks are highly reactive yet press-stable, delivering predictable curing and adhesion results when exposed at a running speed of e.g. 600 units per minute to UV lamps of 160 Watts per cm.

3. SUBSTRATES

- We recommend to achieve optimum printing results by using a pre-treatment by either CORONA or Flame.
- PE, PS, PVC & ABS > 38 dynes per cm PET > 42 dynes per cm.
- PP & PPCP > 44 dynes per cm.

4. AUXILLIARIES

Our ready to use inks can be mixed with :

Tack Reducer	Recommended 1-3%	Reduces tack
PI Additive	Recommended 1-3%	Increases cure speed
Slip Additive	Recommended 1-2%	Improves scratch resistance
Scuff Additive	Recommended 1-2%	Improves scuff

5. PACKING

DR-0/1/2 inks are packed in 1 KG (NET) black plastic cans with 12 x 1 KG per box.

6. STORAGE & SHELF-LIFE

- **DR-0/1/2** inks should be stored in a cool, dry, well ventilated covered area.
- Ambient temperature should be between 20-25 degrees Celsius.
- Avoid direct sunlight.
- Under these conditions and in its original container, the shelf-life of **DR-0/1/2** inks is **12 months** from the date of production indicated on the label.
- Excess ink from the press should be stored separately and its stability monitored.

6. STORAGE & SHELF LIFE Cont.....

- Several factors during printing will reduce the shelf-life.
- Check thoroughly if reusing.
- Desatec does not guarantee the shelf-life of excess ink, ink that has not been stored in the specified conditions or ink that has been modified in any way.

7. HEALTH & SAFETY

Please refer to the Material Safety Data Sheet for more information.

8. LEGISLATIVE COMPLIANCE

✓	(EC) 1935 / 2004, (EC) 2023 / 2006
DR-1 inks do comply with the above requirements and are formulated in accordance with EuPIA Guidelines on Printing Inks for Non-Food Contact Surface of Packaging Materials.	
✓	SWISS FOPH RS 817.023.21
DR-1 inks do comply with the above SWISS requirements and confirm to EN 71:3 making the product suitable for packaging applied to toys and games in addition to indirect food packaging.	
✓	NESTLE GUIDANCE NOTES
DR-2 inks do comply with the above Nestle Guidance Notes.	

DR-0/1/2 inks are NOT suitable for direct food contact



9. DISCLAIMER

The above statements are accurate to the best of our knowledge and belief. However, due to the great number of possible influences during the manufacture of the substrates and the variation in the application process we suggest that suitability testing take place under actual conditions before production. No legally binding guarantee of certain properties or of the suitability for a definite application purpose can be derived from the above information.

For more information or samples please contact:

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