



REF No.:	TDS/007
Rev. Date:	25/03/13
Issue Date:	25/03/13
Page No.:	1 to 5
Version No.	02

Technical Data Sheet :

Product Identification:

TRUTOPP BOPP SURFACE SERIES

Description:

TRUTOPP BOPP SURFACE Inks are highly pigmented, high solids and low viscosity inks, for Gravure Process, printed BOPP films printing applications – use in confectionery wrapping. Optimized to give best printing results at very high press speeds.

Due to its excellent technical specifications, TRUTOPP BOPP SURFACE Inks are suitable for all kind of packing structures (e.g. all kind of sealing as horizontal, vertical, Lap)

TRUTOPP BOPP SURFACE Inks are free from banned solvents (like as Toluene and MEK) and exclusively formulated with high Molecular weight, non-migrating plasticizer resins.

End Use:

TRUTOPP BOPP SURFACE Inks are designed especially for printing of carry bags, bread bags, shopping bags, snack food and frozen food packaging etc.

Printing Machines:

TRUTOPP BOPP SURFACE Inks is tailored to run effortlessly on High Speed Gravure Presses

Printing Substrates:

- ✓ **HS-BOPP**(Corona treated 38-42 Dyne/cm)
- ✓ Polyethylene (Corona treated > 38 Dyne/cm)
- ✓ Normal-BOPP(Corona treated 38-42 Dyne/cm)
- ✓ Acrylic coated polypropylene
- ✓ Pearlize BOPP
- ✓ CC-PET
- ✓ Other films after verifications

Special Features:

- ✓ Optimal strength inks with Good Printing Stability
- ✓ High Transparency and Gloss
- ✓ Excellent adhesion
- ✓ Good scuff resistance & slip properties: Could be further enhanced by Employing TIL Slip & Scuff Additive
- ✓ Excellent solvent release, enabling high press speeds to be used
- ✓ Designed to exhibit a low coefficient of friction
- ✓ Excellent freeze thaw resistance: making the ink suitable for the extreme cold weather countries
- ✓ Good heat resistance (160⁰C, 3bar, 1-sec., Treated film, under standard lab conditions)

Colour Range:

A full range of colors is available, which may only occasionally be restricted by end user requirements. The pigments used have reasonable commercial fastness to light but they may not withstand prolonged exposure to direct sunlight. If this property is required, it should be requested while placing orders.

Process Range:

Product Codes	Product Description	L.F. (1-8 Scale)
TCK 3102 - 00	TRUTOPP BOPP SURFACE COASTER BLACK	7
TCY 3103 - 00	TRUTOPP BOPP SURFACE COASTER YELLOW	5-6
TCC 3104 - 00	TRUTOPP BOPP SURFACE COASTER CYAN	7
TCM 3105 - 00	TRUTOPP BOPP SURFACE COASTER MAGENTA	4-5
TCM 3105 - 02	TRUTOPP BOPP SURFACE MAGENTA ARSR	6

Standard Range:

Product Codes	Product Description	L.F. (1-8 Scale)
TCY 3103 - 01	TRUTOPP BOPP SURFACE YELLOW GREENER	6
TCY 3103 - 02	TRUTOPP BOPP SURFACE YELLOW WARM	6
TCY 3103 - 03	TRUTOPP BOPP SURFACE YELLOW OPAQUE	3-4
TCC 3104 - 01	TRUTOPP BOPP SURFACE COASTER BLUE SPL	7
TCC 3104 - 02	TRUTOPP BOPP SURFACE COASTER BLUE ROYAL	4 to 5
TCR 3106 - 01	TRUTOPP BOPP SURFACE WARM RED	3
TCR 3106 - 02	TRUTOPP BOPP SURFACE DEEP RED	5-6
TCR 3106 - 03	TRUTOPP BOPP SURFACE RHODAMINE RED	6
TCO 3107 - 00	TRUTOPP BOPP SURFACE ORANGE	5-6
TCG 3108 - 00	TRUTOPP BOPP SURFACE GREEN	7
TCV 3109 - 00	TRUTOPP BOPP SURFACE BASIC VIOLET	5,D
TCV 3109 - 01	TRUTOPP BOPP SURFACE VIOLET ARSR	7

White and Extender Medium:

Product Codes	Product Description	L.F. (1-8 Scale)
TCE 3100-00	TRUTOPP BOPP SURFACE COASTER MEDIUM EXTENDER	NA
TCW 3101 - 00	TRUTOPP BOPP SURFACE COASTER WHITE	7
TCW 3101 - 01	TRUTOPP BOPP SURFACE OPAQUE WHITE	7

Printing and Processing:

	DIN Cup 4	AFNOR Cup 4	Ford 4 Cup	Zahn 2 cup
Flexo printing	19-22 sec	21-25 sec	20-24 sec	22-26 sec

Viscosity adjustment should be started only after the ink is well mixed and the ink is at room temperature. Viscosity is adjusted by adding solvents slowly in small quantities. See under "Dilution".

The above figures are given for guidance only.

The Actual viscosity used will depend on a number of factors, including print design, press conditions, the machine running speed and the desired colour characteristics.

Dilution:

Solvent and solvent blends used for dilution may need to be adjusted in accordance to printing conditions: Namely, printing process, printing speed, oven capability, graphics such as solids, lines, half tone and process printing.

To achieve good DOT RE-PRODUCTIONS, Use Extra Retarder

Depending on printing conditions, the following solvents may be used as retarder or accelerator.

Accelerator:- Ethyl Alcohol, Ethyl Acetate

Medium:- N-Propyl Acetate

Slow:- N-Propanol

Retarder:- Methoxy Propanol, Ethoxy Propanol, Dowanol PM

Reducing Systems

We recommend as a basic ratio:

N-PROPYL ALCOHOL	20
ETHYL ACETATE	80

ETHYL ALCOHOL-99% PURE	20
N-PROPYL ACETATE	80

N-PROPYL ALCOHOL	30
ETHYL ACETATE	60
DOWANOL - PM	10

ETHYL ACETATE	80
IPA	20

*It is always better to mix the solvents before adding to the ink.

Shelf Life:

The inks and varnishes of this series have under normal conditions a shelf life of at least 6 months.

Normal conditions means:

- Storage in tightly closed containers
- No admixtures
- Temperature not exceeding 25°C for weeks or 30°C for days.

Short time excess-temperatures e.g. at transport are not harmful. The products are not sensitive to frost.

“Over-stored“ inks (typical symptoms : fall in gloss, shift in shade, formation of odour and / or viscosity increase) may normally – *off colour being exceptions* - be used the same way as residual inks by controlled admixture to fresh inks

Increased viscosity due to long-time storage of inks may generally be adjusted by addition of a slightly higher amount of thinner than the usual.

Please take notice of the following:

1. *The performance results indicated in this literature are only indicative under controlled conditions of laboratory with virgin & standard packaging grade films. Please do not use lower grades or substandard films. Tirupati Ink Ltd., will not take any responsibility for abnormal results*

2. *Liability: While the information outlined is given in good faith, it does not constitute a guarantee and neither is one implied as to the specific end use suitability of any product. The customers should always evaluate the suitability of products to their own satisfaction*

If you require any further information please do not hesitate to contact us or visit our website.



Tirupati Inks Limited

ISO 9001:2000& ISO 14001:2004 Company

D-109-112, Industrial Area GNEPIP, Site-V,
Kasna, Greater Noida (U.P.)-INDIA

Telephone: 91-120-2341227, Fax: 91-120-2341229

E-Mail: info@tirupatiinks.com

Website: www.tirupatiinks.com