



REF No.:	TDS/018
Rev. Date:	25/03/2013
Issue Date:	25/03/2013
Page No.:	1 to 4
Version No.	02

Technical Data Sheet

Product Identification:

TRUEXTR BOPP LAM

Description: TRUEXTR BOPP LAM Series is a range of Optimally Pigmented Gravure Ink System, for reverse printing on BOPP. The system has a solvent Balance optimized to give best results at high press speeds. Due to excellent resin optimization, Truextr BOPP LAM Series of inks are eminently suitable for Reverse printing of the BOPP film for PP Extrusion lamination to PP Woven Sacks. A very fast growing business segment for packaging of food grains, fertilizers etc. **Truextr BOPP LAM Series** is exclusively formulated with specially selected resin system, which Provides excellent bonding with Extruded PP.

End Use: BOPP Reverse Printing and Extrusion Lamination with Molten PP resin with PP Woven sacks.

Note: It is important to mention here that the Bond Strength is highly sensitive to the Extrusion temperature and higher the Extrusion temperature better is the bond strength. Further it is common practice in advance countries to use “Modified PP Granules” for Extrudent material, since this provides polar groups on the Extruded PP for dried ink film to have anchorage. Additionally, many a times a primer is applied before reverse printing the inks on BOPP film – this is to increase the bond between the ink and BOPP film. At the end of the printing run as well a specialised OPV could be applied to improve the bond between the Ink and Extruded PP.

PRINTING SUBSTRATES:

- ✓ Transparent BOPP Film (Corona treated > 38 Dyne/cm)

Special Features:

- ✓ High strength inks
- ✓ Good Printing Stability
- ✓ Excellent Bond Strength
- ✓ Suitable for Extrusion Lamination
- ✓ Good Blocking resistance
- ✓ Excellent immediate adhesion to BOPP Film
- ✓ Excellent solvent release, enabling high press speeds to be used
- ✓ Designed to exhibit a low coefficient of friction

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	Light Fastness (1-8 Scale)
KBK-1702-00	TRUEXTR BOPP LAM BLACK SUPER	7
KBY-1703-00	TRUEXTR BOPP LAM YELLOW	4-5
KBY-1703-01	TRUEXTR BOPP LAM YELLOW OP	3
KBC-1704-00	TRUEXTR BOPP LAM CYAN	7
KBM-1705-00	TRUEXTR BOPP LAM MAGENTA	3-4

White and Extender Medium:

Product Codes	Product Description	LIGHT FASTNESS (1-8 Scale)
KBE-1700-00	TRUEXTR BOPP LAM MEDIUM	NA
KBW-1701-00	TRUEXTR BOPP LAM WHITE OPAQUE	7

PRINTING AND PROCESSING:

	DIN Cup 4	AFNOR Cup 4	Ford 4 Cup	Zahn 2 Cup
Gravure Printing	15-19 sec	16-21sec	14-18 sec	20-23 sec

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

The Actual viscosity used during the printing will depend on a number of factors including print design and press conditions, the intended running speed and the desired colour. The above figures are given for guidance only.

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

To achieve good DOT RE-REPRODUCIBILITY @ below 8% level, Use of Extra Retarder is Recommended

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

Accelerator: MEK, Ethyl Acetate

Slow: Toluene

Retarder: MIBK

It is essential to ensure solvent removal, especially while employing excessive slow drying solvents, to avoid blocking and to maintain the low odour properties of **these inks**.

Reducing Systems:

We recommend as a basic ratio:

Standard:

Toluene	50
Ethyl Acetate	50

For Half Tone Jobs:

Toluene	45
Ethyl Acetate	45
MIBK	10

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 storage 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*

2.1. *Tirupati Inks is responsible only to the tune of replacing the ink consumed in case of any printing related problems clearly assigned to in-compatibility with the ink system recommended by Tirupati Inks for the print job under consideration.*

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