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Technical Data Sheet :

Product Identification:

TRU ULTRAFILM SURFACE MP-GR SERIES

Description: TRU ULTRAFILM SURFACE MP-GR Inks are highly pigmented and low viscosity inks for gravure, high quality surface printing applications. Optimized to give best printing results at very high press speeds.

Due to its excellent chemical selection, **Tru ULTRAFILM Surface MP-GR** Inks are suitable for all kind of packing structures, specially for milk packing applications – hence the “MP” is the added suffix in this ink name

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

End Use: **Tru ULTRAFILM Surface MP** Inks are designed especially for printing of **milk** pouches, carry bags, bread bags, shopping bags, snack food and frozen food packaging etc.

Printing Machines: TRU ULTRAFILM SURFACE MP-GR Inks is tailored to run effortlessly on High Speed Gravure Presses.

Printing Substrates:

- ✓ Polyethylene (Corona treated > 38 Dyne/cm)
- ✓ BOPP(Corona treated > 38 Dyne/cm)
- ✓ Pearlize BOPP
- ✓ CC-PET
- ✓ Other films after verifications

Special Features:

- ✓ High strength inks
- ✓ Good Printing Stability
- ✓ High Transparency and High Gloss
- ✓ Good Blocking resistance
- ✓ 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
- ✓ Excellent Milk and water resistance
- ✓ 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), Full Shade	% Solids(±2)
MGK 3402 - 00	TRU ULTRAFILM SURFACE MP-GR Black	7	31
MGY 3403 - 00	TRU ULTRAFILM SURFACE MP-GR Yellow	5-6	30
MGC 3404 - 00	TRU ULTRAFILM SURFACE MP-GR Cyan	7	30
MGM 3405- 00	TRU ULTRAFILM SURFACE MP-GR Magenta	3-4	30
MGM 3405- 02	Tru ULTRAFILM Surface MP- GR Magenta AR/SR	5-6	30

White, OPVs and Extender Medium:

Product Codes	Product Description	L.F.(1-8 Scale), Full Shade	% Solids(±2)
MGE-3400 - 00	TRU ULTRAFILM SURFACE MP-GR Extender Medium	NA	18
MGW 3401 - 00	TRU ULTRAFILM SURFACE MP-GR Euro White	7	48
MPE 3500 - 01	TRU ULTRAFILM SURFACE MP OPV(GP)	NA	29
MPE 3500 - 02	TRU ULTRAFILM SURFACE MP HG OPV	NA	25

Standard Range:

Product Codes	Product Description	L.F. (1-8 Scale)	% Solids(±2)
MGY 3403 - 01	TRU ULTRAFILM SURFACE MP-GR Greener Yellow	5	30
MGY 3403 - 02	TRU ULTRAFILM SURFACE MP-GR Warm Yellow	6	30
MGY 3403 - 03	TRU ULTRAFILM SURFACE MP-GR Opaque Yellow	3	30
MGR 3406 - 01	TRU ULTRAFILM SURFACE MP-GR Warm Red	3	32
MGR 3406 - 02	TRU ULTRAFILM SURFACE MP-GR Deep Red	5-6	30
MGO 3407 - 00	TRU ULTRAFILM SURFACE MP-GR Orange	5-6	29
MGG 3408 - 00	TRU ULTRAFILM SURFACE MP-GR Green	7	29
MGV 3409 - 00	TRU ULTRAFILM SURFACE MP-GR Non AR/SR Violet	5,D	29
MGV 3409 - 01	Tru ULTRAFILM Surface MP-GR Violet AR/SR	7	28

Performance Enhancer :

Product Codes	Product Description	Active % Content
GRA-2210-00	TRU ULTRA LAM GR ADHESION PROMOTER	80
GRA-2210-01	TRU ULTRA LAM GR SURFACE ADDITIVE	40

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 Acetate

Medium:- Ethyl Alcohol ,N-Propyl Acetate

Slow:- N-Propyl Acetate, N-Propanol

Retarder:- Methoxy Propanol, Ethoxy Propanol, Dowanol- PM

Reducing Systems

We recommend as a basic ratio:

ETHYL ACETATE	80
N-PROPYL ALCOHOL	20

ETHYL ACETATE	80
ETHYL ALCOHOL-99% PURE	20

ETHYL ACETATE	60
N-PROPYL ALCOHOL	30
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*

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.



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