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Technical Data Sheet:

Product Identification:

Tru Ultralam GR Series

Description: Tru Ultralam GR inks are Optimally pigmented Gravure Inks for both reverse and surface Printing (the later application only after adding TIL Slip & Scuff Additive, Code No. GRA-2210-01) with a solvent Balance optimized to give best results at high press speeds due to its excellent chemistry management.

Tru Ultralam GR Series is suitable for all kind of packing structures (e.g. all kind of sealing as horizontal, vertical, Lap, flow- pack,)

Tru Ultralam GR Series is free from Toluene and MEK and exclusively formulated with high Molecular weight, non-migrating plasticizer resins.

End Use : Tru Ultralam GR Series is designed especially for printing of carry bags, bread bags, shopping bags, snack food and frozen food packaging etc. – including high quality lamination jobs.

Printing Machines: Tru Ultralam GR Series is tailored to run effortlessly on Gravure printing machines.

Printing Substrates:

- ✓ Polyethylene (Corona treated > 38 Dyne/cm)
- ✓ BOPP(Corona treated 38-42 Dyne/cm)
- ✓ Pearlize BOPP
- ✓ Other films after verifications

Specific Features:

- Good Printing Stability
- High bond strengths in lamination jobs
- Instant adhesion on majority of the printing films
- Good Blocking resistance
- Excellent Gloss & Transparency
- Good scuff resistance & slip properties: Could be further enhanced by employing TIL Slip & Scuff Additive (Code No. GRA-2010-01)
- 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/ Water Resistance
- Good heat resistance (160°C, 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 Colour Range:

Product Codes	Product Description	L.F. (1-8 Scale) Full shade	% Solids (±2)
GRK-2202-00	TRU ULTRALAM GR BLACK SUPER	7	29
GRY-2203-00	TRU ULTRALAM GR YELLOW	5-6	30
GRC-2204-00	TRU ULTRALAM GR BLUE	7	31
GRM-2205-00	TRU ULTRALAM GR MAGENTA EURO	3-4	30
GRM-2205-01	TRU ULTRALAM GR MAGENTA	3-4	30
GRM-2205-02	TRU ULTRALAM GR MAGENTA ARSR	6	30

White and Extender Medium:

Product Codes	Product Description	L.F. (1-8 Scale) Full shade	% Solids (±2)
GRE-2200-00	TRU ULTRALAM GR MEDIUM EXT.	N. A.	19
GRW-2201-00	TRU ULTRALAM GR WHITE EURO	7	48
GRW-2201-01	TRU ULTRALAM GR WHITE OPAQUE	7	48

Standard Range:

Product Codes	Product Description	L.F. (1-8 Scale) Full shade	% Solids (±2)
GRY-2203-01	TRU ULTRALAM GR YELLOW GREENER	5	30
GRY-2203-02	TRU ULTRALAM GR YELLOW OPAQUE	3	30
GRY-2203-03	TRU ULTRALAM GR YELLOW WARM	6	30
GRR-2206-02	TRU ULTRALAM GR RED WARM	3	31
GRR-2206-03	TRU ULTRALAM GR DEEP RED	5-6	30
GRR-2206-04	TRU ULTRALAM GR RED ROHDA	5-6	29
GRO-2207-00	TRU ULTRALAM GR ORANGE	5	30
GRG-2208-00	TRU ULTRALAM GR GREEN	7	30
GRV-2209-00	TRU ULTRALAM GR VIOLET NON AR SR	5,D	29
GRV-2209-01	TRU ULTRALAM GR VIOLET AR SR	7	29

Performance Enhancer :

Product Codes	Product Description	Active % Content
GRA-2210-00	*TRU ULTRALAM GR ADHESION PROMOTER	80
GRA-2210-01	TRU ULTRALAM GR SURFACE & SLIP ADDITIVE	40

**Addition of this additive improves instant adhesion characteristic + bond strength by 30 to 40 units + to certain extent water and heat resistance properties as well.*

Printing And Processing:

Cup Used:	DIN Cup 4	AFNOR Cup 4	Ford 4 Cup	Zahn 2 cup
Viscosity :	15-19 sec	16-21sec	14-18 sec	20-23 sec

**The above figures are given for guidance only.*

Viscosity adjustment should be undertaken 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 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 and graphics such as solids, lines, half tone and process printing.

To achieve good DOT RE-PRODUCTION for dots below 7 % level, Use Extra Retarder

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

Accelerator: Ethyl Acetate

Medium: N-Propyl Acetate, Ethyl Alcohol

Slow: N-Propanol

Retarder: Methoxy Propanol, Ethoxy Propanol, Dowanol PM

Reducing Systems:

We recommend:

ETHYL ACETATE	80
N-PROPANOL	20

ETHYL ACETATE	80
IPA	20

ETHYL ACETATE	70
ETHANOL	30

ETHYL ACETATE	60
ETHANOL	30
DOWANOL PM	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 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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