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Technical Data Sheet:

Product Identification:

Tru Ultra NC Pigment Concentrates: for Solvent based Liquid Inks

Description: Tru Ultra NC Pigment Concentrates are Nitro Cellulose Base colour (pigment) concentrates with high pigmentation levels and easy flowing viscosities. Especially recommended for solvent based packaging gravure and flexographic printing inks, exhibit bright hue, high colour strength, high gloss and high transparency with very good rheological properties. Printing inks containing, Tru Ultra NC Pigment Concentrates result in graphics with high brilliance, excellent printability and high resolution.

Tru Ultra NC Pigment Concentrates are free from banned solvent (like Toluene and MEK) and exclusively formulated with acetates and alcohols and high Molecular weight, non-migrating plasticizer. Highly suitable for high speed flexo and gravure printing Ink applications.

The rapid and complete solvent evaporation obtainable with Tru Ultra NC Pigment Concentrate based printing inks allows exceptionally high printing speeds to be achieved on modern fast running printing Machines.

End Uses: Tru Ultra NC Pigment Concentrates are designed especially for liquid printing inks, for printing plastic films and aluminum foils intended for use in printing inks for carry bags, drug packages, bread bags, shopping bags, snack food and frozen food packages etc.

Recommended Ink Systems:

- ❖ Modified Nitro Cellulose – For aluminium Foils
- ❖ Modified Poly Urethane
- ❖ Modified Polyamide (Non-Reactive)
- ❖ Modified Nitro Cellulose – For printing paper

Special Features:

- ✓ High Strength
- ✓ High Transparency
- ✓ Excellent Gloss
- ✓ Eco-friendly solvent system
- ✓ Low odour
- ✓ Solubility in and compatibility with mostly alcohols and acetates.
- ✓ Easy to Handle Rheological properties
- ✓ Rapid evaporation of solvents (rapid drying)
- ✓ Good heat resistance

Application Areas:

- ❖ Flexible Packaging Liquid Inks
- ❖ AI- Foil Printing Inks
- ❖ Board Printing Inks
- ❖ Paper Printing Inks

Printing Process:

- Rotogravure
- Flexography

Colour Range:

Process Range:

Product Codes	Product Description	L.F. (1-8 Scale)	Pigment %
NRC-1804-01	Tru Ultra NC Pigment Conc. Blue 15:3	7	25
NRM-1805-00	Tru Ultra NC Pigment Conc. Magenta	3-4	22
NRV-1803-00	Tru Ultra NC Pigment Conc. Yellow 13	5-6	22
NRK-1802-00	Tru Ultra NC Pigment Conc. Black-7	7	25

White and Standard Range:

Product Codes	Product Description	L.F.(1-8 Scale)	Pigment %
NRW-1801-00	Tru Ultra NC Pigment Conc. White-6	7	55
NRV-1803-03	Tru Ultra NC Pigment Conc. Yellow 83	6	22
NRR-1806-00	Tru Ultra NC Pigment Conc. Red 53:1	3	25
NRR-1806-03	Tru Ultra NC Pigment Conc. Red 48:2	5-6	22
NRM-1805-03	Tru Ultra NC Pigment Conc. Red 146	6	22
NRR-1806-00	Tru Ultra NC Pigment Conc. Red 81	6	22
NRO-1807-00	Tru Ultra NC Pigment Conc. Orange 13	5	22
NRV-1809-00	Tru Ultra NC Pigment Conc. Violet 3	5,d	22
NRV-1809-01	Tru Ultra NC Pigment Conc. Violet 23	7	22
NRG-1808-00	Tru Ultra NC Pigment Conc. Green-7	7	22

Recommended Solvents:

For Gravure Inks (Major Part):

- Ethyl acetate
- N-Propyl acetate
- Ethanol
- N-Propyl Alcohol

For Flexo Inks (Major Part)

- Ethanol
- D-PM
- N-Propanol
- Methoxy Propanol - Retarder
- Ethoxy Propanol - Retarder

Recommended Additives Proportion in Final Inks*:

For improving the mechanical, surface properties and reducing blocking of final prints we recommend adding different additives as a basic proportion into inks as below table:

S.N.	Substances	% Addition in ink	Tirupati Products
1	NC-PU Technology Varnish	45 to 65 %	ADV-4100-00
2	Amide Wax	Up to 1.0 %	ADA-4101-00
3	Olefin Wax	Up to 2.0 %	ADO-4102-00
4	Defoamer	Up to 0.2 %	ADD-4103-00
5	Plasticizers	Up to 3.0 %	ADP-4104-00
6	Slip Additives	Up to 0.1 %	ADS 4105-00

** If Required*

Recommended Plasticizers**:

For improving the mechanical properties such as elongation, flexing fastness, resistance to folding and creasing and thermo-formability, and increasing the resistance to low temperatures, and changes in temperature (cold-check-test) ,1 - 3 % plasticizer recommended to adding into final inks prepared from Tru Ultra Lam Concentrates

- ❖ Acetyl tributyl citrate (ATBC)
- ❖ Diisobutyl phthalate (DIBP)
- ❖ Dicyclohexyl phthalate (DCHP)
- ❖ Octyl diphenyl phosphate (ODDP)
- ❖ Triphenyl phosphate

Remark: Do not use the substances with long aliphatic Substituent (like as diisononyl phthalate, dioctyl adipate) and raw and blown vegetable oils stearates, oleates as plasticizers

*** If Required*

SHELF-LIFE:

Tru Ultra NC Pigment Concentrates have under normal conditions a shelf life of at least 9 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.

Increased viscosity due to long-time storage of Tru Ultra NC Pigment Concentrates 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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