



TuAy Kimya

MODERN SOLUTIONS FOR MODERN LIFE...



ABOUT US

TU AY KIMYA, an organization within TU AY GROUP is manufacturer of flexographic and rotogravure printing inks for flexible packaging industry.

Tend to fully serve its customers, the company moved on working hard investing in printing industry.

Besides standard inquiries of its customers, TU AY Kimya is capable to develop new products based on customer needs.

Its effective project management heads to creativity, innovation and customer-oriented organization. Its nominative production approach leads to constant high quality production with the most cost-effective and high speed services.

Strictly following customers' requirements, thanks to its flexible foundation the company intends to serve printing industry efficiently.

Our main goal is customer satisfaction, providing the best possible products at the best possible prices.

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Masterbatch

WHAT IS “MASTERBATCH”?

Masterbatch is a solid or liquid additive for plastic used for coloring plastics (color masterbatch) or imparting other properties to plastics (additive masterbatch). Masterbatch is a concentrated mixture of pigments and/or additives encapsulated during a heat process into a carrier resin which is then cooled and cut into a granular shape. Masterbatch allows the processor to colour raw polymer economically during the plastics manufacturing process.

MASTERBATCH TYPES

1- Colored masterbatches pigment rate of which is high have perfect dispersion, high heat resistance, light fastness, high performance and are bright.

Product group of colored densified dyestuff (masterbatches) is used for coloring raw materials of LDPE, HDPE and PP used for film, PP raffia and bag of plastic raw materials produced by pouring, inflating and extrusion methods. Colored densified dyestuff (masterbatches) produced yields perfect results for dyeing and covering LDPE, HDPE and PP raw materials. Our company has technical specifications and quality control certificates of densified dyestuff produced (masterbatches).

Sectors of use

Household goods, Toys, Agricultural products, Package, Pipe and joints, Electricity/electronic, Cosmetics, Furniture, Bathroom accessory, Sports equipment, Office equipment

Areas of Application

Film, pouring, extrusion and inflating.

2- Black masterbatches with high carbon rate have perfect dispersion, are bright and dull, have high heat resistance and are economic. Our products having different carbon rates ranging from 25% to 50% can be configured as to be opaque and have transparency.

Sectors of use

Automotive, Pipe and joints, Electricity/electronic, Cable, Plate, Package/ bag, Construction materials

Areas of Application

Film, pouring, extrusion and inflating





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3- **White masterbatches** having high TiO₂ (titanium) rate are highly resistant to heat, have strong hiding power and high bleaching power. Our products having different titanium rates from 40% to 70% are produced in milk and ice white. The products have high opacity and brightness and technical and physical properties for perfect dispersion and offer a wide variety of options from the most cost-efficient type to the highest titanium concentration.

Sectors of use

White goods and household goods, Pipe and joints, Electricity/electronic, PVC, Cable, Thermoform products, Cosmetics, Furniture

Areas of application

Film, pouring, extrusion and inflating

4- **Mono masterbatches:** It is the single pigment application with high concentration and high dispersion and filter resolution.

5- **Additives and Added masterbatches:** The following additives are fit for LDPE, PP, HDPE and moreover slip product is used for especially recycling PE raw material.

SLIP: It achieves slipping effect by preventing adhesion of film structures to each other and to metal surfaces.

ANTI-BLOCK: Prevents blocking during film production and creates light slipping effect.

ANTISTATIC: Prevents static electricity formation on plastic product and prevents absorption of dust and foreign matters arising from electrification by the product.

ULTRAVIOLET: Prevents fading of plastic materials subject to UV rays and extends the service life.

OPTICAL WHITENER: Optical whiteners are used to make polymer whiter and brighter.

Areas of application

Film, injection, extrusion and inflating.



Masterbatch



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PRINTING INKS

WHAT IS PRINTING INK?

Printing ink is a liquid or paste that contains pigments or dyes and is used to color a surface to produce an image, text, or design.

TU AY Kimya printing inks have been specially formulated to give color clarity, consistency, rub resistance and excellent printability. There is a wide variety of inks available for any printing requirement, with each product displaying exceptional versatility.

The most common printing methods are as follows:

- **FLEXOGRAPHIC**
- **ROTOGRAVURE (GRAVURE)**

Flexographic Solvent-based inks are used for printing treated polyethylene, polypropylene and certain other films. Being alcohol-based they are suited to today's food packaging specifications for such applications as bread bags, deep freeze packaging, and carrier and counter bags.

They have been particularly formulated to take advantage of the modern flexo press where clean running and fast drying properties are required. This series has low odor and solvent retention. Anti-static properties and good slip for enhanced packaging machine performance. Good adhesion providing scuff and abrasion resistance.

Unlike most inks produced for other printing processes, **Rotogravure** inks comprise a pigment, a binder to keep the pigment uniformly dispersed and to bind the pigment to the surface of the substrate, and a solvent to dissolve the binder and eventually evaporate away in the drying phase. These Solvent-based inks formulated for Roto-gravure printing of co-extruded polypropylene films that is mostly used for packaging snack food products. They exhibit adhesion on the modern high speed press giving prints with low odour and low retained solvent characteristics.

In rotogravure printing, the most important considerations in terms of solvents are their dissolving of the film-forming resins, the rate at which they dry, whether or not they have deleterious effects on previously-printed ink (as in multi-color jobs). Gravure is also well-suited for printing on a host of other types of substrates, such as foils, plastics, etc. When used on plastic packaging, most gravure presses require the use of fast-drying solvents.





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SPECIFICATIONS OF "TU AY" FLEXOGRAPHIC INKS

Specifications

- Printing availability on PA/PE/PP/OPP/PET/ BOPP /HDPE /LDPE plastic film
- Flexographic ink for label printing

Characteristics & Advantages

1. NC-based, environmental friendly, non-toxic, no peculiar smell, no toluene
2. High solid content, high efficiency in product output
3. Bright color, high clarity and quick pigmentation speed
4. Perfect scratch resistance and rub resistance

Usage

1. Packages of fast food, biscuit, bread and other desserts
2. All kinds of drink labels
3. Hygienic and cleaning liquid packages

SPECIFICATIONS OF "TU AY" ROTOGRAVURE INKS

Specifications

- Printing availability on PA/PE/PP/OPP/PET/ BOPP /HDPE /LDPE plastic film

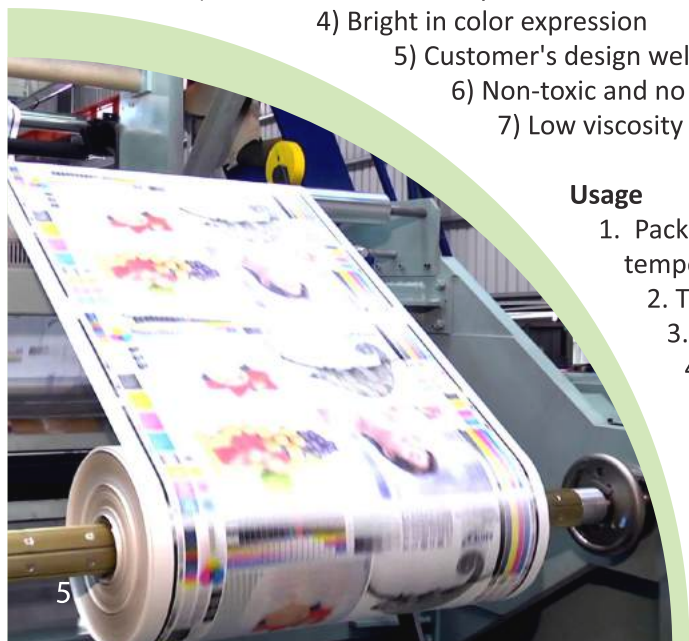
Characteristics & Advantages

- 1) High clarity, bright color, good printing compatibility
- 2) Fluently using without any broken line while long time printing
- 3) Good chemical stability
- 4) Bright in color expression
- 5) Customer's design welcomed
- 6) Non-toxic and no heavy metals
- 7) Low viscosity and alcohol-based

Usage

1. Package of food including the boiled food package printing in high temperature
2. Treated or untreated Woven Sack
3. Packages of fast food, biscuit, bread and all kinds of drink labels
4. Hygienic and cleaning liquid packages

NOTE: These Inks are formulated for different resistant properties such as Urea resistant, Alkali resistant, Rub resistant etc.





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Products

PRINTING INK SERIES

TAL Lamination ink series
TAS Surface Printing ink series
TALX Lamination ink series
TASX Surface Printing ink series
TAP Pet printing ink series
TAD Deep-freeze ink series

LACQUERS

LQ 1000 Heat Seal Lacquer
LQ 2000 Heat Seal Lacquer
LQ 3000 Release Lacquer
LQ 4000 Antistatic Lacquer

ADDITIVES

ADT 1000 Slip & Scratch Resistant
ADT 2000 Adhesion Promoter
ADT 3000 Matting Agent
ADT 4000 Heat resistant Improver

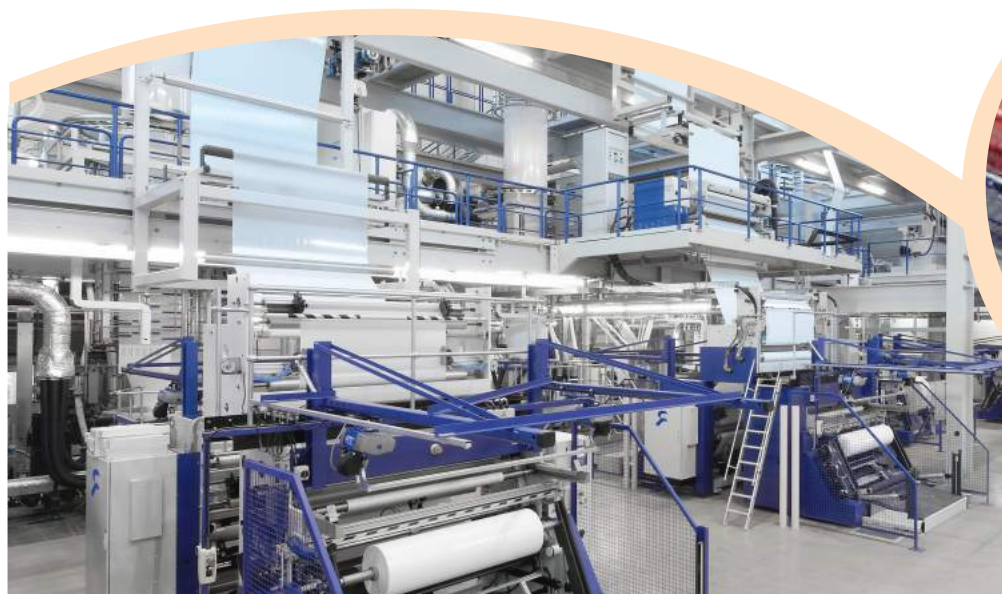
TECHNICAL VARNISHES

TVS 0100 Surface Printing Tech Varnish
TVL 0100 Lamination Tech Varnish
TVP 0100 PET Tech Varnish
EXT 0100 Extender varnish

MASTERBATCH SERIES

CB Black masretbates
CT White masterbatches
CP Colored masterbatches

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Products



SOLVENT-BASED LACQUERS

PRD. CODE	PRD. NAME	PRD. VISCOSITY	THINNER	PROPERTIES
LQ 4000	Antistatic Lacquer	30-35 sec. 25 °C DIN 4	Ethyl Alcohol -Ethyl Acetate	To be used for Aluminum foil
LQ 3000	Release Lacquer	30-35 sec. 25 °C DIN 4	IPA - HEGZAN	To be used for PE, PET, OPP, BOPP, Metalize
LQ 2000	Heat Seal Lacquer	50-60 sec. 25 °C DIN 4	Ethyl Acetate	Alm. to PVC heat system
LQ 1000	Heat Seal Lacquer	50-60 sec. 25 °C DIN 4	Ethyl Acetate	Heat system for PCV & PC to Alm.

SOLVENT-BASED PRINTING INK ADDITIVES

PRD. CODE	PRD. NAME	APPLICATION QTY	PROPERTIES
ADT 1000	Slip&Scratch Resistant Additive	2 - 5 %	To increase scratch resistance of OPP, PE, PET inks.
ADT 2000	Adhesion Promoter	2 - 5 %	To increase surface adhesion of OPP, PET, BOPP, PE inks.
ADT 3000	Matting Additive	10 - 30 %	To provide mattness for all printing ink series.
ADT 4000	Heat Resistant Improver	2 - 5 %	To increase heat resistance of surface printing inks.

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FLEXO & ROTOGRAVURE PRINTING INKS

NAME	PRINTING METHOD	PRINTING MATERIAL	PRODUCTION VISCOSITY	THINNER	PROPERTIES
TAL	Flexo - Rotogravure	OPP, PE, paper, Alm. foil	30-35 sec. 25 °C DIN 4	Ethyl Alcohol Ethyl Acetate	A printing ink series suitable for lamination with high heat resistance and perfect adhesion.
TAS	Flexo - Rotogravure	OPP, PE, paper, Alm. foil	30-35 sec. 25 °C DIN 4	Ethyl Alcohol Ethyl Acetate	Surface printing ink with high glossy characteristics and high surface resistance.
TALM	Flexo	OPP, PE, paper, Alm. foil	30-35 sec. 25 °C DIN 4	Ethyl Alcohol Ethyl Acetate	High pigment ink series suitable for lamination & suitable for max. 300 Anilox & 300m/min speed.
TASM	Flexo	OPP, PE, paper, Alm. foil	30-35 sec. 25 °C DIN 4	Ethyl Alcohol Ethyl Acetate	Surface printing ink series suitable for max. 300 Anilox & 300m/min speed.
TALX	Flexo	OPP, PE	30-35 sec. 25 °C DIN 4	Ethyl Alcohol Ethyl Acetate	Printing ink series suitable for late dryness lamination & suitable for +300 Anilox & +300m/min speed.
TASX	Flexo	OPP, PE	30-35 sec. 25 °C DIN4	Ethyl Alcohol Ethyl Acetate	Surface printing ink series suitable for late dryness lamination & suitable for +300 Anilox & +300m/min speed.
TAP	Flexo - Rotogravure	PET, paper	30-35 sec. 25 °C DIN 4	Ethyl Alcohol Ethyl Acetate	PET printing ink series suitable for glossy lamination and high color range.
TAD	Flexo - Rotogravure	OPP, PE, paper, Alm. foil	30-35 sec. 25 °C DIN 4	Ethyl Alcohol Ethyl Acetate	Deep - Freeze resistant glossy surface printing ink.



QC DEPARTMENT

Here are the tests done by our quality control department:

- Coefficient of friction, lamination strength, adhesion strength
- Spectrophotometry
- Gas chromatography
- Deep freeze test

Certificates: ISO 9001:2008, ISO 2846-5ROSH, OHSAS 18001:2007

TU AY Kimya is equipped with a continuous self-control software system.



R&D DEPARTMENT

Thanks to the multifunctional business development team in its R&D department, TU AY Kimya provides a high-speed evaluation and feedback against customer inquiries in all technical aspects. Market researches and customer inquiries are strictly evaluated under new product development projects by its business development team presented in R&D department.

These projects lead to the most effective as well as most cost-effective solutions to satisfy customer needs. Existing structures and products are also continually developing to fully meet the customer needs. The specifications of all products are developed as well as raw materials provisions, operation and product sustainability.

Thanks to its constant relations with suppliers, the most innovative raw material developments are analyzed and presented to customers directly and easily.

Detecting technological developments and new production practices by its business development team, TU AY Kimya aims to enhance the standard production system and develop a brand new production structure.

Attempts are continued to improve productivity and production quality to achieve brand new raw materials, formulation and operation.





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OUR SERVICES

TU AY Kimya as a leading manufacturer in flexible packaging industry in local and international markets keeps its products constantly available in its distribution warehouses to achieve the highest levels of customer satisfaction.



We not only share our excitement of meeting the future with our customers' growth, but we also make a commitment to continue serving our partners with best of our services and product quality in a constantly growing level.



We plan to serve present customers with the future solutions. Our professional technical team is ready to serve our customers with the most innovative projects in packaging industry. Product innovation is the key to our success and a sign of our professional identity.



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