

Cytech Coatings Pvt. Ltd.

We Serve, You Print.....



www.cytechgroup.in

CYTECH GROUP OF COMPANIES

Innovation • Redefinition • Competent

Overview of Cytech Group...



- The Cytech group of companies HQ in India. The group of companies was commenced in 2010 as a small scale industry in Sarigam, Gujarat , India .
- Since it's very beginning, Cytech Group of Companies. has remained strongly committed to the printing industry. This is reflected in high levels of investments we have made not only to manufacture INKS & ADHESIVES but also the key raw-materials like Resins, Additives, etc.
- The Company expanded it's horizons and currently having 3 manufacturing facilities in Sarigam, Gujarat, India and three international Ink factories located at (A) Nairobi, Kenya (B) Lagos, Nigeria (C) Ras Al Khamah –UAE respectively.
- The Company has full-fledged Testing facilities for not only Inks but also Raw-Materials and Printing specimen.
- Overall, it's a Vertical Integrated Company taking care of not only the Employees but also the Customers.

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Our Motto...



Our goal is to achieve customer satisfaction through excellence in products, supply chain management and manufacturing process through our culture, drive and the expertise of each individual employee.

We are uniquely positioned to provide best in - class products to our global customer base.

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Product Portfolio...



- ❖ Gravure / Flexo Inks
- ❖ UV Inks & Varnishes
- ❖ Resins For Inks



Lamination Adhesives

- Solvent Base
- Solvent Less
- Water Base



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Printing Inks...



PRINTING

- Printing is a process of reproducing text and image, typically with ink on substrate using a printing press
- Ink is the carrier of the graphics and visuals intended to be printed on a substrate.
- Both combined together is VISUAL COMMUNICATION

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Understanding Ink And Its Application...

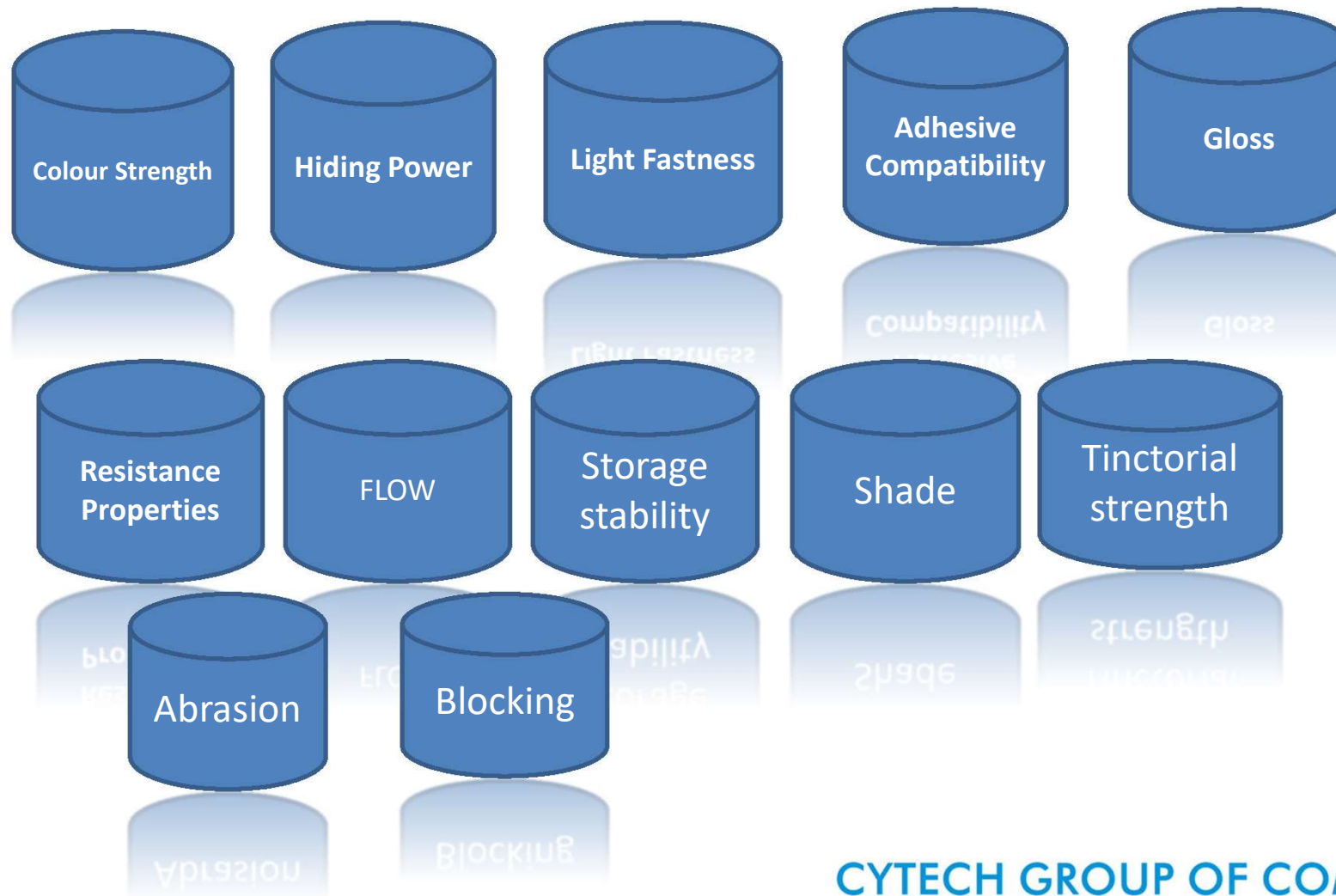


Colourants / Pigments	5 –30 %
Binder systems	15 –60 %
Solvents	20 –70 %
Additives	1 –10 %

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Understanding Ink And Its Application...



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Manufacturing of Printing Inks...



Printing is widely used in our society to pass on information and to decorate the object. This has resulted in printing being used on many different surfaces like aluminium foil, Bopp Film, Polyester Film, Paper, etc...Special inks have been developed for the different applications.

Printing inks are produced by mainly four components.

- Pigments – To colour the ink and make it transparent or opaque
- Resins – it works as a binder, which binds to the film and to the printing surface.
- Solvents – to make the ink flow so that it can be transferred to the printing surface.
- Additives - which alter the physical properties of the ink to suit different applications

These four components are formulated into ink in two steps.

Step 1 – Varnish Manufacture

Varnish is a clear liquid and a base for any ink. Different varnishes are made for the different inks, as per the desired application, but they all are made up of Resin, Solvents & Additives to form a homogenous mixture

Step-2 – Pigment Dispersal

The pigment is mixed in to the varnish and then ground to break up clumps of pigment and to spread the pigment evenly through the ink.

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Introduction to Raw-Material of Printing Ink...



➤ Pigments

The most obvious roll of pigment is to colour the ink. However, they can also provide gloss, abrasiveness and resistance to attack by light, heat, solvents etc. Special pigments known as extenders and opacifiers are also used.

➤ Resins

Resins are primarily binders - they bind the other ingredients of the ink together so that it forms a film and they bind the ink to the paper. They also contribute to such properties as gloss and resistance to heat, chemicals and water. Many different resins are used, and typically more than one resin is used in a given ink. The most commonly used resins are Polyurethanes, Nitrocellulose, Vinyls, Polyamides, Acrylics, Ketones, Maleics, Phenolics. Etc...

➤ Solvents

Solvents are used to keep the ink liquid from when it is applied to the printing plate or cylinder until when it has been transferred to the surface to be printed. At this point the solvent must separate from the body of the ink to allow the image to dry and bind to the surface. The commonly used solvents are Ethyl Acetate, Toluene, Iso Propyl Alcohol, Methoxy Propanol, Normal Butanol, N-Propyl Acetate etc...

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Equipment and machineries used for production of printing inks...

Continuous Bead Mill



High Speed Disolver



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Manufacturing Process...

There are three steps at the time of production.

Step1.

In this process before grinding premix has to be prepared in a separate tank which is a combination of medium, additive, solvent and colour pigment powder as per the formulations. The mixture of above mentioned raw material should be stirred well with a high-speed dissolver.

Step3.

Once the premix is ready, the grinding process will be done through continuous bead mill. Beads (grinding media) inside the grinding chamber are agitated by rotating the shaft and the particles are ground and/or dispersed by the collision and shear force of the beads.

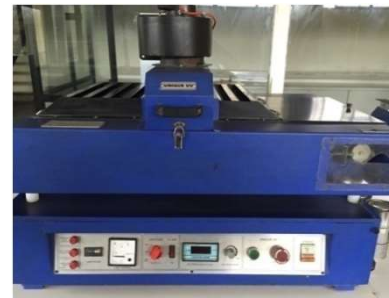
Step4.

After completion of grinding the ink is transferred in bin and it is stirred well with the help of high-speed dissolver for proper mixing with addition of let down part. The ink is sent for quality control approval for packing

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R&D Capabilities...



GC & GPC

RK Printing Proofer

Unique UV Tester

Lab Jaw Heat-Cold
Sealer

Bond-Heat Seal
Strength

Digital Rub Tester

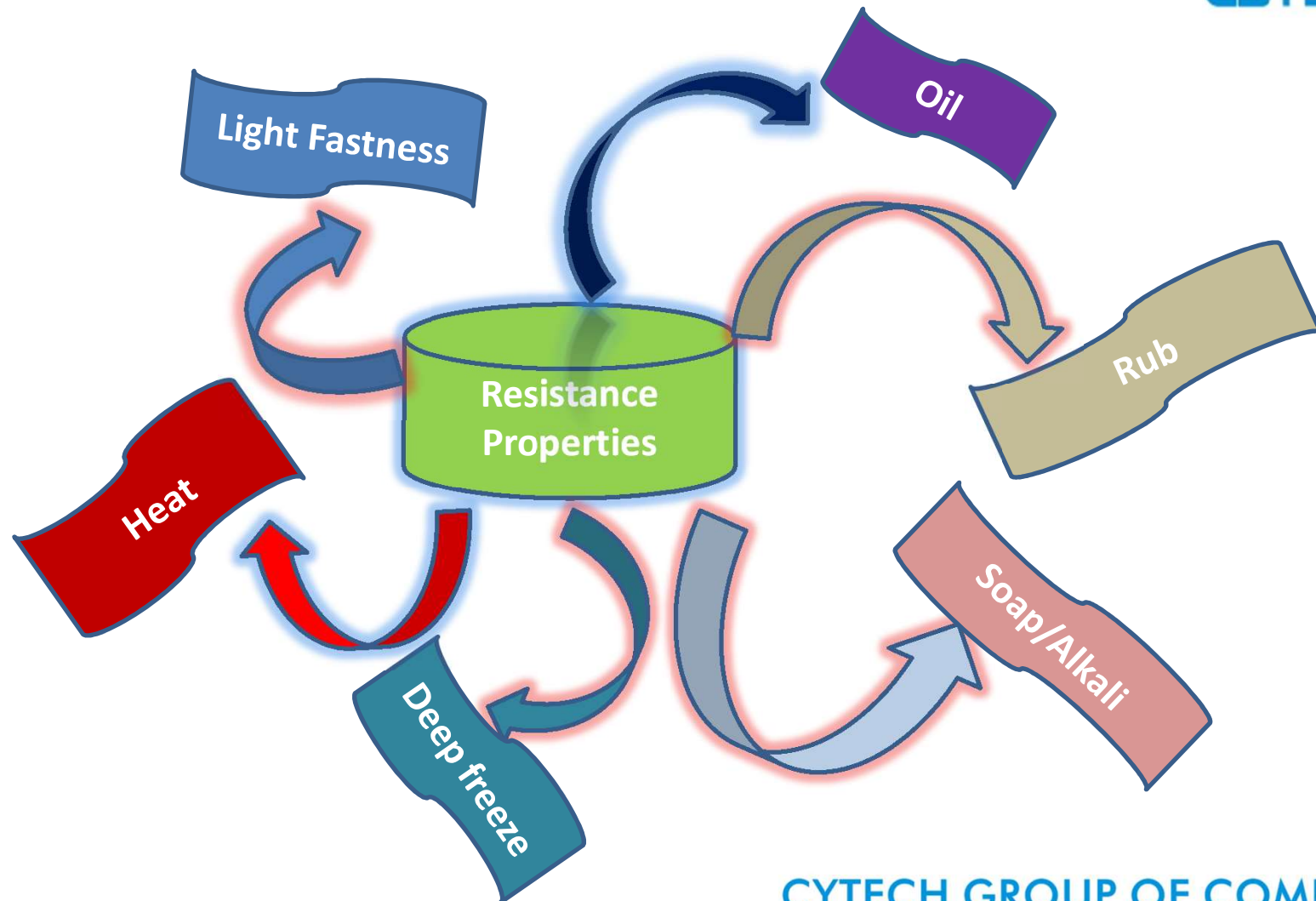
Brookfield Viscometer

Karl Fischer

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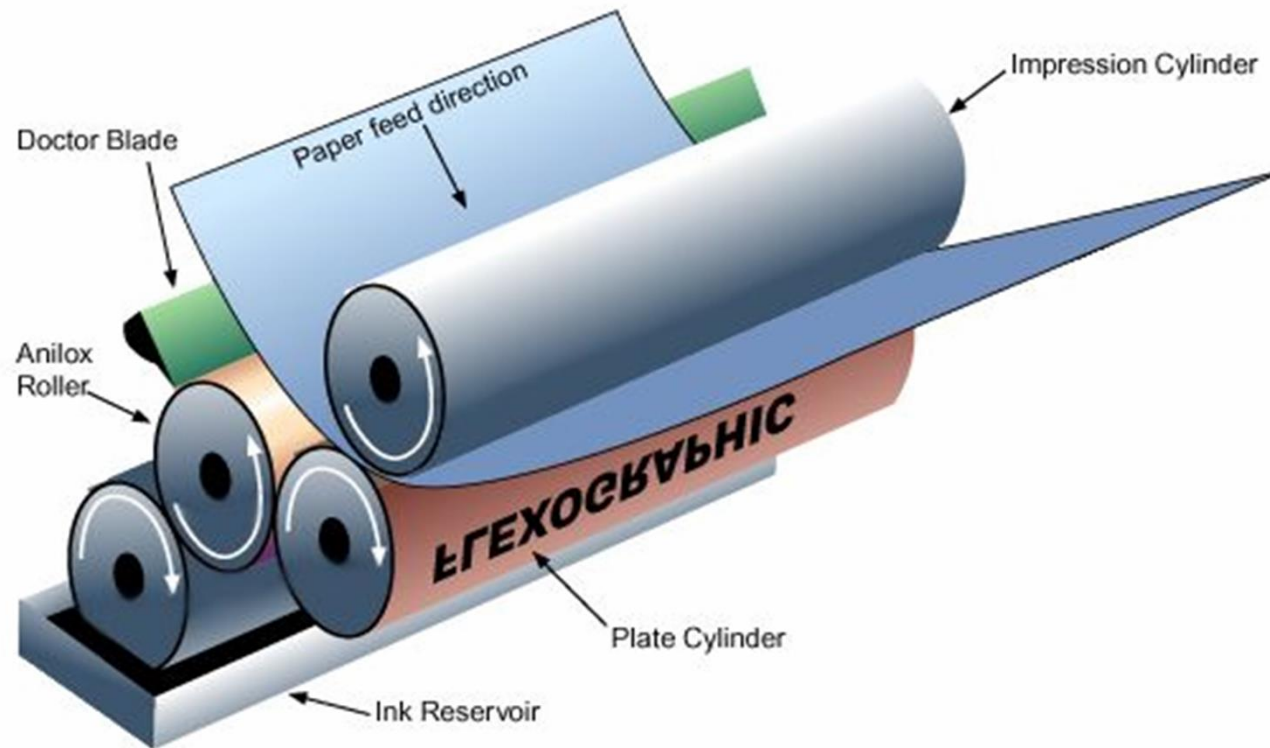
Understanding Ink And Its Application...



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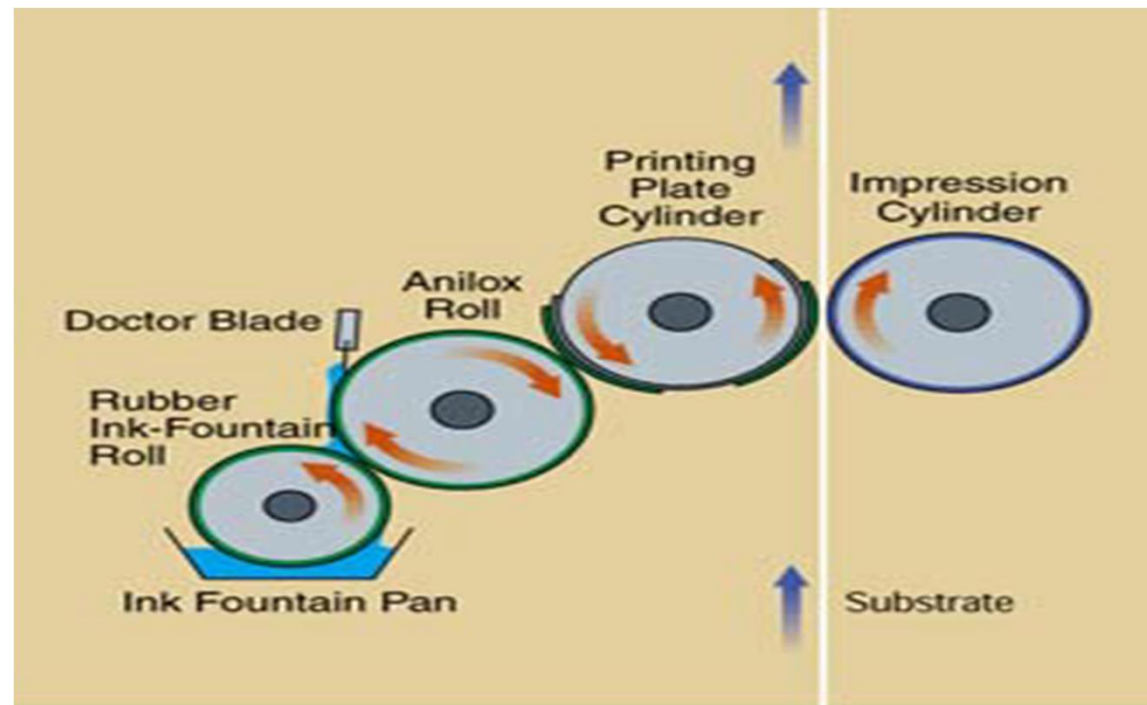
Flexible Packaging: Flexo Printing...



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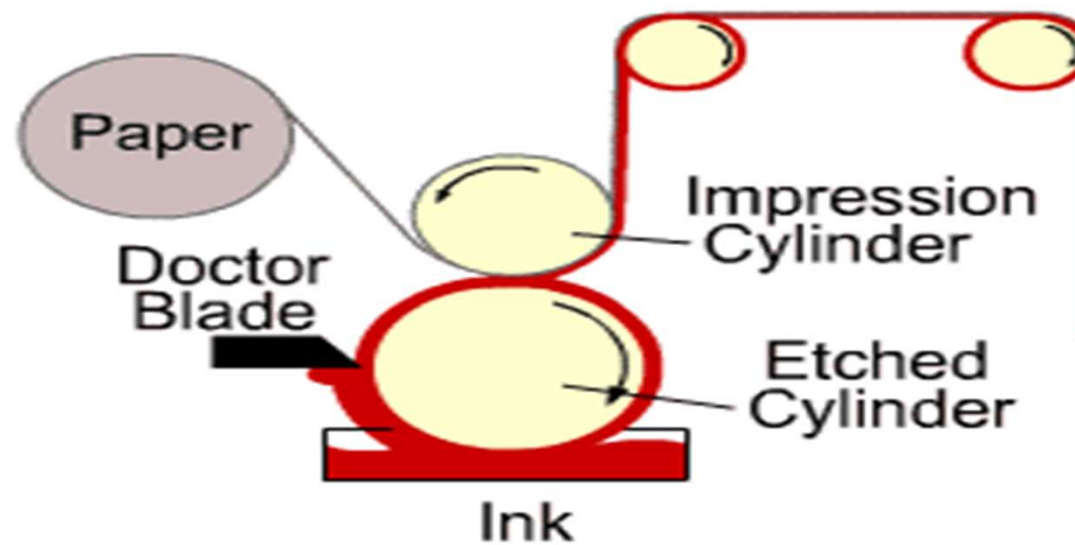
Flexo Printing System...



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Flexible Packaging: Gravure Printing...



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Gravure & Flexographic Inks...



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Printing Inks | Range Gravure / Flexo Graphic Inks...



PRODUCT NAME	SYSTEM OF INKS
HIPRINT AMAZON	PU based Ink System
HIPRINT AMAZE	Vinyl based Ink System
HIPRINT ALPINE	NC/PU based Ink System
HIPRINT AMBER	Vinyl/CPP based Ink System
HIPRINT TEMP	NC/PU based Ink System
HIPRINT PEONY	Polyamide/Phenolic Ink System

PRODUCT NAME	SYSTEM OF INKS
HIPRINT TULIP	Polyamide/Ketonic Ink System
HIPRINT AXONA	Polyamide Ink System
HIPRINT AVENS	Water based Inks
HIPRINT ATAX	NC based Ink System
HIPRINT ASIS	NC/Acrylic based Ink System

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Application type | Nature of Gravure & Flexo Inks...



<u>Name of Ink</u>	<u>Application</u>	<u>System of Ink</u>
HIPRINT AMAZON	Food Grade Packaging	PU based Inks
	Boil & Retort Packaging	
	PET & BOPP Reverse Printing	
	Nylon, Cellophane, PVD Films	
	Soap Detergent & Salt Packaging	
HIPRINT AMAZE	Food Grade Packaging	Vinyl based Inks
	Direct extrusion Lamination on PP & PE	
HIPRINT ALPINE	Food Grade Packaging	NC / PU based Inks
	Soap Detergent & Salt Packaging	
HIPRINT AMBER	Food Grade Packaging	Vinyl / CPP based Inks
	PET & BOPP Reverse Printing	
HIPRINT TEMP	High Heat Resistance Surface Printing	NC / PU based Inks
	Paper Printing	
HIPRINT PEONY	Fat, Oil & Milk Resistance Surface Printing	Polyamide based Inks
	Deep Freeze Surface Printing	
	Soap Detergent & Salt Packaging	
HIPRINT ASIS	Shrink Pack PVC Sleeve Printing	NC /Acrylic based Inks
HIPRINT TULIP	Fat, Oil & Milk Resistance Surface Printing	Polyamide based Inks
	Soap Detergent & Salt Packaging	
HIPRINT AXONA	HDPE woven sack bags & Roll Printing	Polyamide based Inks
HIPRINT AVENS	Paper & Carton Packaging	Acrylic Emulsion based Inks
HIPRINT ATAX	Label Printing Inks	NC based Inks

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U. V. Inks & Varnishes...



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UV Inks & Varnishes...



PRODUCT NAME
NARROW WEB UV FLEXO INK
UV GLOSS OPV COATINGS
UV SCREEN VARNISH
UV DUCT VARNISH
UV MATT VARNISH



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Resins...



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Resins For Inks | Product Range & Application...



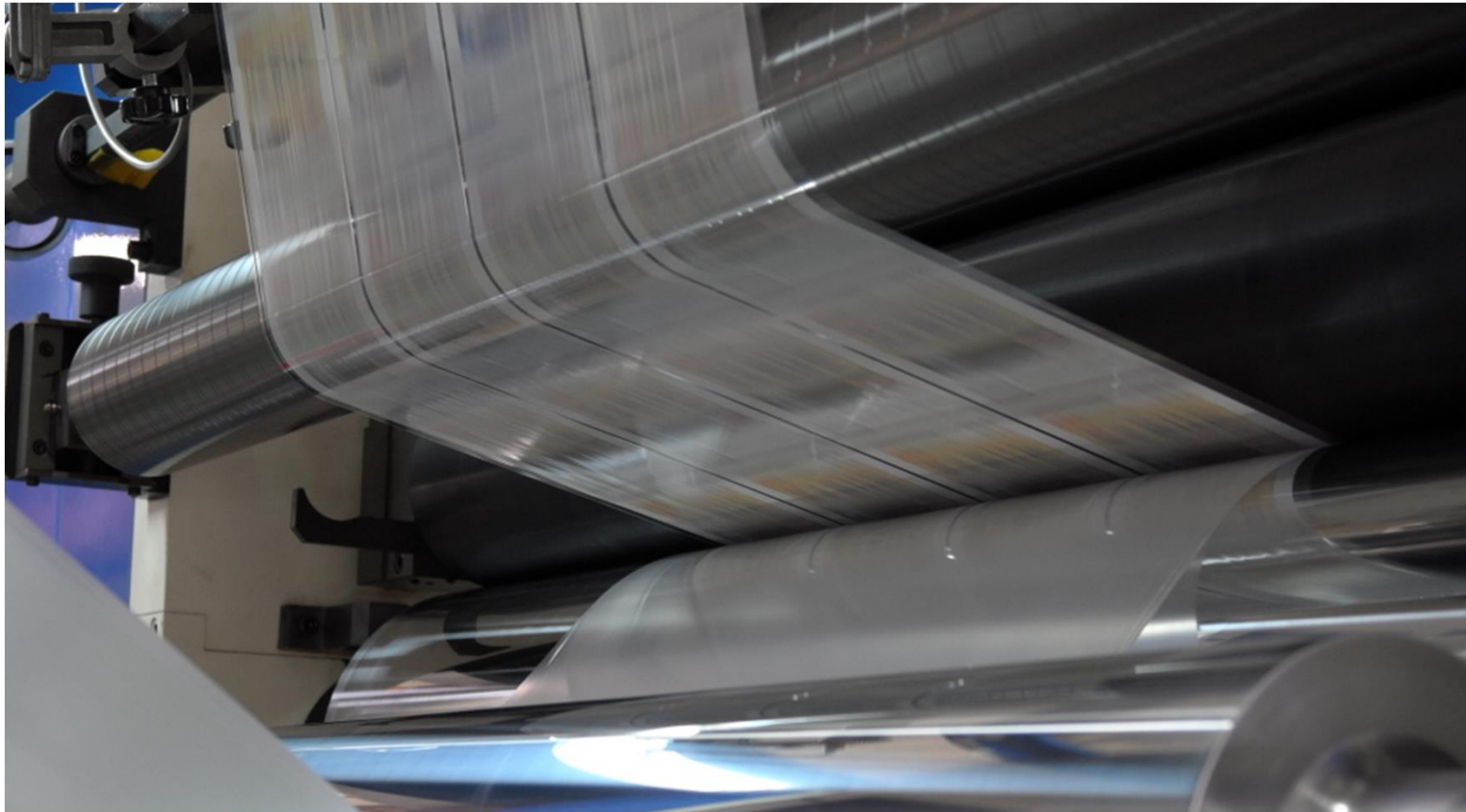
PRODUCT NAME	APPLICATION
KETONIC	Ketonic Resin is clear, pale, straw to water white resins which are very soluble in ethanol and exceptionally compatible with film-forming polymers such as nitrocellulose, vinyl, acrylics and polyamide resin.
PURE PHENOLIC & REDUCED PHENOLIC	Applicable for the production of flexo & gravure inks & spirit varnishes.
S. S. POLYAMIDE	The S. S. Polyamide resin is a spirit (Alcohol) soluble resin, which is mainly used for production of gravure & Flexo Inks.
CO. SOLVENT POLYAMIDE	The Co-solvent polyamide resins may be considered as the traditional polyamide ink binder. This product is particularly suited for the production of gravure & flexo inks



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Lamination Adhesive...



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Lamination Adhesives...



HILAM GP 50

Solvent Base
Adhesive

HILAM GP 100

Solvent Base
Adhesive

HILAM HP 200

Solvent Base
Adhesive

HILAM SL 300

Solvent Less
Adhesive

HILAM WB 400

Water Base

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Description...



HILAM – Laminating adhesives for flexible packaging materials....

**A wide range of adhesives has been developed to meet all marked needs.
Constant research and development is directed to extend product applications.**

The adhesive are generally classified in terms of performance.

- **General purpose: for snack food and confectionery**
- **Medium performance: for coffee pouches, liquid soaps, cosmetics, sauces and condiments,**
 - **Laminates with moderate thermal treatments**
- **High performance: for retort applications, hot fill/boil-in-bag, etc.**
- **Industrial lamination: sail cloth, insulation laminates, cable wrap, metal laminates**

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Product Overview...



Solvent based laminating adhesives

HILAM adhesives are based on polyurethane resin system and ethyl acetate.

These adhesives have been standardized based on years of R&D experience and customer feedback. All the raw-materials are carefully selected to ensure very high reliability in product performance and applications.

The special grades of polyurethane resins used in these adhesives are developed in our own R&D center based on our extensive know-how of PU Chemistry.

Solvent based laminating adhesives are suitable for wide range of food and non-food applications. No wonder these products are highly appreciated by our customers in the domestic and international markets.

HILAM Adhesives offers:

- Excellent machine performance
- Excellent transparency
- Excellent wettability
- High initial and final bond strength
- High slip compatibility
- Suitable for wide range of machine speeds

Solvent free laminating adhesives

Keeping in mind the increasing trend towards solvent free laminating adhesives, Cytech Coatings now offers a range of products in this category.

These adhesives are suitable for wide range of machine speeds, substrate types and end applications.

In view of criticalities associated with the use of solvent free adhesives, extreme care is required in terms of formulation approach and raw-material selection.

HILAM Adhesives offers:

- Low viscosity system for laminating of transparent, opaque and metalized films
- Suitable for high speed lamination process
- High slip compatibility and low migration

Lamination critical parameters:

- Surface tension of the film
- Coating GSM of adhesives
- Mixing ratio
- Curing time
- Slip additive to the film
- Temperature, pressure, reel tension
- Machine speed

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Few Clients...



Huhtamaki



INIGNIA



**BOBMIL GROUP
OF COMPANIES**

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Key Competitive Strengths...



- Centralized production facilities in Sarigam, Gujarat.
- Competent planning throughout the company.
- Strong leadership & staff communication.
- Backward integrated inks production facilities, presence in various product segments
- Leverage on cost & capacity utilization
- Research & Development strengths with in-house Plant & process know-how
- A growing enterprise with making presence around the World
- Experienced management team



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What can WE offer to you:

- 1) Our products are meeting global industry requirements
- 2) One and the same manufacturing company and supplier, meaning clear and quick information to you
- 3) Good capacity available, so significant volume can be supplied to you
- 4) Possibility to increase capacity quickly if needed
- 5) Known & Proven Technology for various kind of Coatings, Inks & Adhesives

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Communication...



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THANKS FOR YOURS TIME

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