



ECO-FRIENDLY PRINTING SOLUTIONS



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Zydex
Innovating for Sustainability

INNOVATING FOR SUSTAINABILITY



Established in 1997, Zydex is a speciality chemicals company with the purpose of innovating for sustainability.

We are committed to creating a sustainable world through innovative, environment-friendly and patented technologies in the areas of agriculture, textiles, paints, waterproofing and roads. Our product portfolio encompasses 200+ innovative solutions with presence in over 40 countries across the globe.

Zydex has a range of eco-friendly textile processing solutions from yarn to finishing that minimize water consumption, process time and simplify manufacturing process. As leading textile processing chemical manufacturer, we have redefined textile solutions in manner which imparts excellent functional and aesthetic properties to finished fabrics and garments with minimum cost.

AWARDS & RECOGNITIONS

**CII 25 Most Innovative
Companies of India**

**FGI Award for Research in Science
& Technology (2011)**

India Inc. Innovative 100 Award (2013)

**Marico Innovation Award for
Best Business Innovation (2014)**

WE OFFER A RANGE OF TEXTILE PRODUCTS IN THESE AREAS

**FILAMENT
SIZING**

**SPUN
SIZING**

**PRE-
TREATMENT**

**GARMENT
PRINTING**

**FABRIC
PRINTING**

FINISHING



Our products have been certified with OEKO-TEX and GOTS standards. We've been working with supply chains of the AFIRM Group of retailers like C&A, H&M, S. Oliver, Levis, Nike, Puma, Adidas, GAP and many more, helping them to meet RSL & Quality standards.

Epricon

Procion / Reactive replacement:

Reactive/Procion printing has been the mainstay of high-end fabric printing due to its depth, brilliancy, soft feel & good fastness. However it requires alkaline fixation, consuming large quantities of water for washing. Due to lack of complete fixation, dye contaminated water is produced during washing.

The final colour depth and tone cannot be ascertained until the fabric is fully processed. This results in "blind" printing which often leads to higher rejections.

Further, Procion printing cannot be done with finer meshed easily leading to poor look of the fabric.

Epricon is a next generation printing system designed by Zydex to address these issues. Using a unique polymer design, Epricon allows the user to print with depth, brilliancy, feel and fastness like reactive. Epricon can replace most reactive print designs with finer meshes, does not require washing and leads to lower rejections. This improves overall productivity and profitability of the manufacturer.

Discharge Replacement:

Discharge printing is a very tedious process due to:

1. Variations in dischargability of different types of dyes, shades and their fabrics leading to higher packing losses.
2. Slower production due to high deposition and open meshes.
3. Pollution issues due to post-washing processes.
4. Longer lead times.
5. RSL failures due to Nickel / formaldehyde etc.

To solve these issues, Zydex has developed high solid, slow-drying inks which allow printing at finer meshes (even during hot

conditions) on normally dyed fabrics without compromising feel, fastness and brightness properties. This leads to better look, faster delivery and lower costs.

Dyeing replacement:

Epricon can also be used to replace dyeing with blotch printing to do shorter runs of different coloured grounds together in one lot thereby reducing inventory carrying costs for retailers.

The Epricon solution package consists of the following products:

PRINTING:

Epribond L: Specially formulated binder for printing **pastel to light** shades with very **good levelling** even in 0.05 to 0.5% shade depth.

Epribond D: Specially formulated binder for printing **medium to dark** shades with **soft feel and excellent fastness** up to 6 % shade depth.

Epriprint: A new generation polymeric thickener, which is designed for high solidity, brilliancy and soft feel.

R3000 / R3 Clear: Ink package that can be printed through finer than regular mesh counts without chocking for discharge replacement on dark ground.

FINISHING:

Eprisoft: Softening agent for improved feel, brightness and fastness.

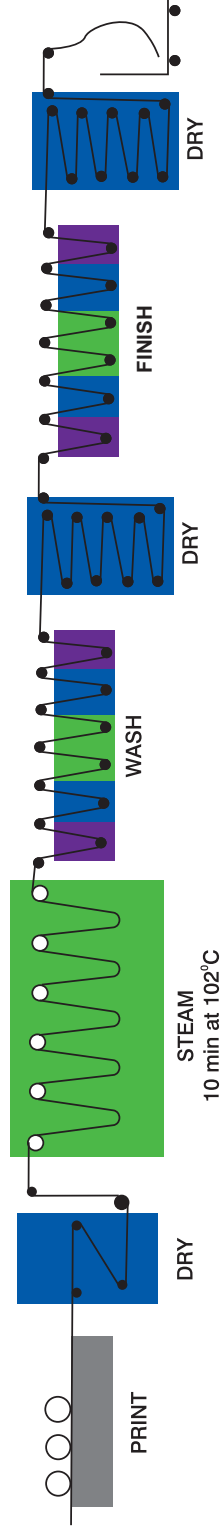
Eprifix: Cationic polymer to improve wet crock, dry crock and washing. It can be used as a supplement along with either non-ionic or cationic softeners.

It cannot be used with anionic softeners and will lead to flocculation.

Note: Epricon Package will not be complete without the use of Eprifix and Epriprint.

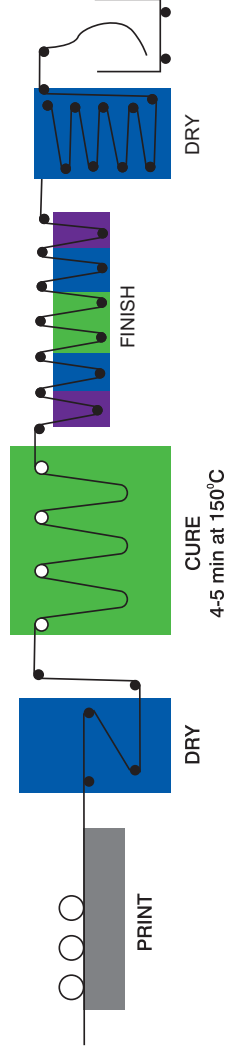
Conventional Process

Reactive printing process



Epricon Process

Eco-friendly printing process (no washing)



WHERE IT CAN BE USED?

It can be used in all the segments Apparel fabrics - (men's and women's wear, home furnishings etc.

WOMEN'S WEAR

Fabric Type	Category	Replacement for
Rayon	Dress Materials	Procion and Discharge Printing, also for Rapid, Indiosol, Naphthol
Cotton (High End)	Dress Materials	
Cotton (Medium / Low End)	Dress Materials	
Medium End	Night Wear	
Low End	Saree	

MEN'S WEAR

Fabric Type	Category	Replacement for
Cotton / Linen	Shirting	Procion and Discharge Printing. Creating Yarn Dyed, Dobby, Jacquard look
	Bottoms	
Blends	P/V Suiting	
	Worsted suiting	

HOME FURNISHING

Fabric Type	Category	Replacement for
Cotton, Blends	Bed Sheets, Towels	Procion printing for medium shades, Upgradation of Pigment Printing with Brightness, Sharpness, Solidity, levelling* etc. / Dyeing Replacement

- Good leveling in pastel shades (T. Blue, Pink, Brown etc. @ 0.05 to 0.3 %)
- Dyeing replacement.

"DIGITAL" LOOK AND COLOUR CONSISTENCY:

This package allows printing at finer meshes which can help achieve digital look prints with deeper shades and brighter colors (which are not possible in digital printing) at much lower costs. Improved printing parameters. This leads to sharper eye catching prints at affordable prices.

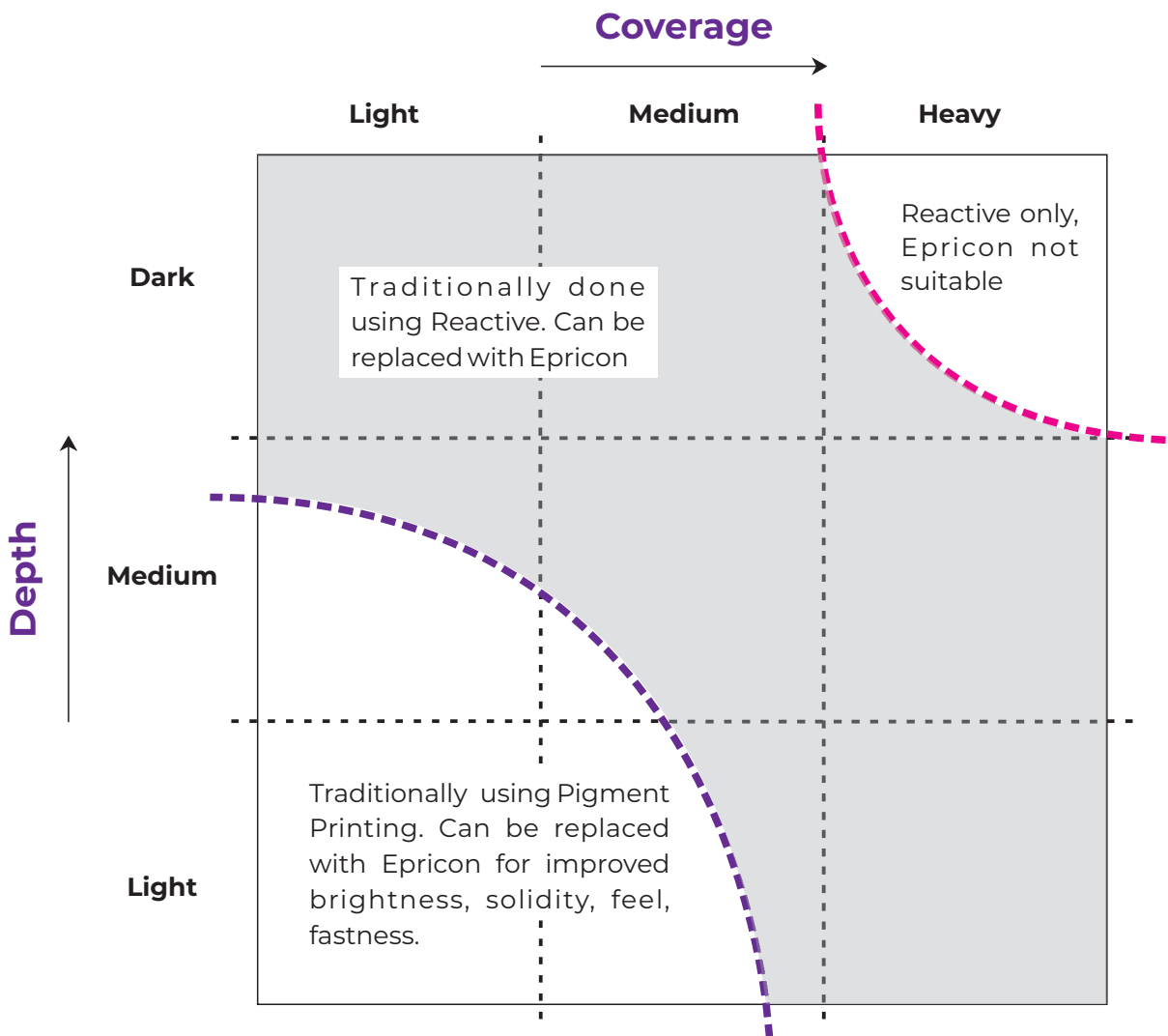
	Epricon	Procion
Mesh	160	120
LPI	40	30
DPI	600	300
Colour consistency	Assured Direct print	Variable (Ager issues)



WHAT ARE THE LIMITATIONS OF EPRICON?

Epricon system uses pigments for printing. These have limitations in terms of achieving depth and fastness properties of reactive dyes when used for creating dark shades (>6%) with high coverage (>80%).

Therefore Epricon may not be suitable for such designs. A guide for suitability of Epricon usage is given below:



ABOUT ZYDEX

Established in 1997, Zydex is a specialty chemicals company with the purpose of innovating to create a sustainable world through conservation of resources.

Beyond construction products, Zydex offers a diverse set of chemical technologies for the textile, agriculture and pavement industries. We were recently recognised as one of the 25 Most Innovative Companies in India by the Confederation of Indian Industry (CII).

Sustainable Green Chemistry

Zydex is deeply committed to sustainable chemistries that will ensure a greener future for everyone. Our commitment has made us a pioneer in introducing non-polluting and non-hazardous technologies that conserve, protect and enhance the environment. Pursuing chemical innovations that would mean a greener, safer and more resource renewable world is our passion. Our technologies have been recognized for their contribution to sustainability and are globally accepted.



*25 Most Innovative
Companies of India*

GLOBAL PRESENCE

