

**SPECIALTIES**

**[Foil, Glitter, High density, Puff & Transfer printing]**

**Preface:** Zydex offers eco solutions for above special effects on printing. The summary of different products used for these application is given below

	<b>Foil / Transfer</b>	<b>Glitter</b>	<b>High density</b>	<b>Puff</b>
<b>Product (s)</b>	K 2 Foil / Transfer Adhesive	K 2 Glitter	K 2 W (48T – 62T) inks + K 2 Puff Base	K 2 / K2 Opaque/K 2 W inks+ K 2 Puff Base
<b>Nature of product</b>	Acrylic co-polymer	Acrylic co-polymer	Acrylic co-polymer	Acrylic co-polymer / Vinylidene chloride based polymer (puff base)
<b>Appearance</b>	Translucent – Whitish	Translucent – Whitish	Off White Paste	Off-white Paste
<b>Diluents</b>	Water	Water	K 2 W Clear	K 2 Clear/K 2 Opaque Clear/K 2 W Clear

**Quality assurance to retailers:**

- Cheaper specialties show very poor stretch, loss of softness & loss of smoothness after 5 washes. For a customer, maintaining the printed portions like the original one is critical for wearability of the garments.
- Our products will show almost 90% performances in terms of stretch, smoothness & softness like the original print after 5 stringent wash cycles.

- **Foil Printing:**

**Product attributes:**

- Selective foil printing is possible with K 2 Inks unlike plastisols where full coverage with foil is only possible
- The foil would not stick to cured K 2 inks under pressure. Addition of K 2 Matt: matting agent also helps to avoid sticking.
- This would allow the printer to create selective areas printed with a K 2 Foil / Transfer adhesive with foil creating an integrated design of foil & regular print.

**Application:**

**Step 1:** Print the fabric with K 2 Foil/Transfer Adhesive with the given design.

**Step 2:** Apply the foil paper on printed portion. Top part should be facing upwards

**Step 3:** Apply 5 - 6 bar pressure on printed portion & 190 °C on fusing m/c for 8 – 12 sec.

- **Glitter Printing:**

**Application:**

To prepare glitter paste, add glitter/pearl powder in **K 2 Glitter** under stirring slowly, to avoid lump formation. Typically 15 – 20 % of glitter powder of the total formulation gives optimum results.

- Use bull nose squeegee.
- Mesh size should not be more than 20T.

**Trouble shooting:**

Due to acidic nature of K 2 Glitter, during drying and curing conditions many metallic powders (Uncoated) can show tendency of blackening. It is recommended to check the metallic powders for the above and it is recommended to use lacquer coated metallic powders.

- **High density:**

**Paste formation:**

K2 W inks from the series are also suitable for High density prints as explained below:

Paste formulation:

**Step 1:** Take 20% of the K 2 Puff Base and mix with K 2 W (62 – 120T) colored inks to make it 100%.

**Step 2:** Mix well before use

**Printing procedure:**

**Step 1:** With normal screen (2 floods / 2 strokes)

5 – 8 rounds depending upon height.

**Step 2:** With 150 micron capillary film screen (2 floods / 2 strokes)

3 rounds depending upon height

**Step 3:** With 200 micron capillary film screen (2 floods / 2 strokes)

2 rounds depending upon height

- **Puff/Raised Printing:**

**Application:**

Basically puff printing is done to get 3D (raised) effect. There are two methods for two different types of options:

- 1) **Self-Shade:** Here our products a) K 2 Clear/K 2 Opaque Clear/ K 2 W Clear & K 2 Puff Base 2 – 9% for **Low Raised effect** & 10 – 20% for **High Raised effect** is mixed & stirred well with high-speed stirrer for 5 – 7 min. Then the fabric is printed with this mixture. This is then dried & cured at 150°c for 3 min.
- 2) **Colored Shade:** Here our products a) K 2 /K 2 Opaque /K 2 W inks & K 2 Puff Base 2 – 9% for **Low Raised effect** & 10 – 20% for **High Raised effect** is mixed & stirred well with high-speed stirrer for 5 – 7 min. Then the fabric is printed with this mixture. This is then dried & cured at 150°c for 3 min.

- **Transfer printing**

**Application:**

**Step 1:** Print transfer paper with K 2 Opaque (48 – 62T) color by color.

**Step 2:** Dry it properly.

**Step 3:** Print the same paper with complete coverage of K 2 Foil/Transfer adhesive.

**Step 4:** Dry it properly

**Step 5:** Transfer the same from paper to fabric at 5 - 6 bar pressure & 190 °C on fusing m/c for 8 – 12 sec.

**Tips for RSL Compliance**

- The spatulas, screens, stirrers, containers, squeezes etc. that are used for plastisol inks need to be avoided to prevent contamination and rejection of garments on eco issues.
- Printing sections for water based & plastisols should be segregated completely.
- All other chemicals & accessories used in print shop like beads, emulsions, thinners, degreasing chemicals, adhesives, etc should be RSL compliant.

**Storage:**

- Do not store in direct sun or at a temperature higher than 45°C.
- Always keep the lid closed after withdrawal of material from the can.
- Minimum shelf life of the product is 18-24 months.
- For extended storage, once the can is opened, pour 50 gms of water on the top surface and then close the lid tightly.

**Disclaimer:**

*The information & data contained herein are given in good faith but without warranty. We recommend that before using our products, the customer should make his/her own tests to determine the suitability of the products for his/her own purpose under his/her operating conditions. As the circumstances under which our products are stored, handled and used are beyond our control, we cannot assume any responsibility for their use by the customers.*

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**Zydex Industries**

25/A, Gandhi Oil Mill Compound,  
Gorwa, Vadodara-390016,  
India.

TEL. : +91 265 2280865/2283386/2280120

FAX : +91 265 2280872

Email : [info@zydexonline.com](mailto:info@zydexonline.com)

Web : [www.zydexindustries.com](http://www.zydexindustries.com)