

ZYCOPRINT

SYNTHETIC THICKENER DEVELOPED FOR AQUEOUS PIGMENT PRINTING

Zycoprint is a new generation of polymeric thickener recommended for aqueous pigment printing system. **Zycoprint** can be substituted for emulsion in pigment printing.

Zycoprint is a simple, highly cost effective and safe product, which leads to an environmentally clean process.

Features	Benefits
Associative viscosity building mechanism	Reduces flushing of the print.
New emulsifier chemistry	Softer feel of printed portion compared to the conventional system.
Water based chemistry	Replaces kerosene completely or partially depending on the printer's need.
Good compatibility	Compatible with pigment printing Ingredients.

Application:

1. Preparation of fully aqueous print paste

A typical stock paste is prepared using some of all of the following chemicals (when printing 3-4% shade):

X%	:	Water (typically 82-88%)
3.0 – 3.5%	:	Zycoprint
Y%	:	Binder (typically 8–12%)
1 – 2%	:	Fixing Agent (Melamine type)

100%		

N.B: Always shake the container well while using the product from fresh container.

Zycoprint * consumption will vary depending on following factors

- ❖ **Water quality** (higher the TDS, higher the consumption)
- ❖ **Binder quality** (% solid) and chemistry. For best results it is ideal to use Zydex binder, which is compatible with our thickener. This will also give higher fastness.
- ❖ **Print viscosity**: (this will vary from printer to printer depending on type of printing equipment, fabric being printed etc)
- ❖ **Pigment percentage – Zycoprint** consumption will be same for all shades due to practically nil drop in viscosity after pigment addition. This also eliminates the need for rethickening

For very heavy shade like 8 – 10%, one may want to use higher percentage of binder. Some additional quantity of **Zycoprint** can directly be added and stock paste stirred for 10 minutes to obtain good printable viscosity.

Some of the printers still use kerosene or other solvents. In part emulsion system, the solvent level is reduced to 10-20% from 80% and additional thickening is obtained by **Zycoprint**. The above recipe can be useful for part emulsion system, with the following sequence of chemical addition:

Water → Binder → **Zycoprint** → add balance water → fixing agent (optional for synthetic fabric only) → pigment emulsion.

The paste is stirred for 10 minutes for full viscosity development.

There are many variations of the procedures for stock preparation. Therefore the sequencing time of stirring should be optimized by individual Mill department.

Complementary Products:

1. **Zytrol-600**: Acrylic binder for pigment printing.
2. **R- 55**: Pigment printing softener.
3. **R 5000 TSP**: Ready to use printing paste.

Storage:

- Do not store in direct sun or at a temperature higher than 45°C.
- Always keep the cap closed after each withdrawal of the material from the carboy. Minimum shelf life of the product is 6 months
- Stir **Zycoprint** carboy for 5 minutes before using for the first time.

Disclaimer: *The information in this leaflet is given in good faith but without warranty. We recommend that before using our products, the customer should make his own tests to determine the suitability of the products for his own purpose under his 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.*

MATERIAL SAFETY DATA SHEET

1. Trade Name : **ZYCOPRINT**

Company:

ZYDEX INDUSTRIES
25A, GANDHI OIL MILL COMPOUND
GORWA
VADODARA-390016, INDIA

Emergency information:

ZYDEX INDUSTRIES
TELEPHONE NO.+91 265 2280865, 2283386 FAX NO.91 265 2280872

2. ***Composition/information on ingredients:***

Chemical nature: **Formulated Polymer Product**

3. ***Possible hazards:***

Critical hazards to man and the environment: Non-Hazardous

4. ***First aid measures:***

General advice:	Remove contaminated clothing
If inhaled:	Keep patient calm, move to fresh air
On skin contact:	Wash thoroughly with soap and water
On contact with eyes:	Wash affected eyes for at least 15 minutes under running water with eyelids help open, consult an eye specialist.
On ingestion:	Rinse mouth and then drink plenty of water

5. ***Fire fighting measures:***

Suitable extinguishing media : Water spray, dry extinguishing media, foam, carbon di-oxide (CO₂). Non-flammable and hence no fire hazard.

6. ***Accidental release measures:***

Personal precautions:	No special measures necessary
Environmental precautions:	Do not let product enter drains
Methods for clearing up:	Contain with absorbent material and dispose. Clean with water.

7. ***Handling and storage:***

Handling:	Ensure thorough ventilation of stores and work areas
Protection against fire and explosion:	No special measures necessary
Storage:	Keep tightly closed in a dry and cool place.

8. **Exposure controls and personal protection**

Personal protective equipment	
Respiratory protection:	Avoid breathing vapour
Hand protection:	Protective gloves
Eye protection:	Goggles
General safety and hygiene measures:	Usual precautions for handling of chemicals to be observed.

9. ***Physical and chemical properties:***

Form	:	Liquid pourable dispersion
Colour	:	Translucent Yellow
Odour	:	Paraffinic Smell
Flash point	:	Above 70°C
Ignition temperature	:	>200 °C
Explosion hazard	:	No explosion hazard
Vapour pressure	:	N/A
Density	:	N.A.
Solubility	:	Very thick solution at 2% solution
Solubility in other solvents	:	Miscible
pH value	:	8 – 9
Viscosity	:	1200 – 2500 Cp

10. **Stability and reactivity:**

Storage time: Max. 6 months

Hazardous reactions: None provided product is correctly processed

11. **Toxicological information:** **NON-TOXIC**

12. **Ecological information:**

General Notes:

Do not allow material to be released to the environment without proper governmental permits.

13. **Disposal consideration:**

Product: Must be dumped or incinerated in accordance with local regulations

Contaminated packaging: Uncontaminated packs can be re-used. Packs that cannot be cleaned should be disposed of in the same manner as the contents.

14. **Transport Information:** Not a hazardous material for transportation.

DOT regulations

Hazard class : Not regulated.

Land transport ADR/RID (Cross-border)

ADR/RID Class : Not regulated.

Maritime transport IMDG:

IMDG Class : Not regulated.

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class : Not regulated.

Transport/Additional information: Not dangerous according to the above specifications.

15. Regulations

Product related hazard information:

*Hazard symbols: Non-hazardous

*Safety phrases:

26 In case of contact with eyes, rinse immediately with plenty of water & seek medical advice.

36 Wear suitable protective clothing.

*National regulations:

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory.

*Information about limitation of use:

For use only by technically qualified individuals.

16. Other Information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of the information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product conformance with this Material Safety Data Sheet, or in combination with any product or process, is the responsibility of the user.

.Department issuing MSDS: Safety and Environmental Department.

.Contact: Ajay I. Ranka

PS: The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.
