

## RAN 1000

Specially designed acrylic polymer to improve the properties of starch for smooth film formation and reduced hairiness during sizing

RAN-1000 is a new generation polymer designed with latest organic and physical chemistry used for sizing of spun yarn using starch based recipe. RAN-1000 gives 10% to 25% cost reduction by replacing PVA, Acrylic solution, CMC and Gum.

Features	Benefits
Polymeric Structure	Higher degree of lubricity.
Film Forming Nature	Forms a continuous and smooth film on the yarn and hence improves the coating, minimizing the protruding fiber on yarn.
Speciality Co-Polymer	Leads to improved wetting and penetration along with high degree of adhesion.
Concentrated Product	Requires less storage space.
Good Compatibility	Compatible with most of the textile size ingredients.
High Lubricity	Improves wet pick-up by 15-20% at 0.5 - 1.0% concentration of size solution.

### Specifications:

Colour	: Pale Yellow liquid
Diluent	: Water
Solid content	: 38 ± 2%
Viscosity	: 100-500 CP

1 kg. of RAN-1000 replaces

2-2.5 kg.PVA OR  
6-8 kg. 20% Acrylic solution OR  
6-8 kg. Gum OR  
4-6 kg. CMC OR  
200gm. Antistatic agent OR  
25% Softener

## **Application:**

The best performance is seen with 50 kg. of starch, 2-3 kg. of RAN-1000, 4 to 5 kg. of Z-3000 ACP along with softeners like R-Soft-44. One can add, additional PVA, polyester resin or other binders as needed. Use of RAN-1000 leads to better surface coverage and smoother coating.

## **Method of addition**

- ❖ Stir the RAN-1000 carboy for 5 minutes before using for the first time.
- ❖ Take desired level of water, add 50 kg. of starch or other binding agents while stirring continuously for 5 minutes.
- ❖ Take RAN-1000 in clean dry vessel, weigh it and add desired quantity of RAN-1000 to the mixture over a period of 1-2 minutes while stirring.
- ❖ Transfer the above mixture to a pressure cooker and heat it till the starch is completely cooked and degelatinized.
- ❖ Add softener to the above and keep the temp. at 90-92°C. Stir occasionally while using.

## **Complimentary products:**

- **Zytoplast & Zytoplast TT:** Modified starch for spun sizing
- **R Cryl:** Acrylic based binder for spun yarn sizing
- **Z 3000 ACP:** polyester resin based binder for spun yarn sizing
- **R Soft 44:** Softener for spun yarn sizing
- **R Soft 55:** Softener for spun yarn sizing

## **Storage:**

- ❖ Store the carboys at room temperature in a shade.
- ❖ The minimum shelf life of RAN-1000 is 6 months.

**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: **RAN-1000**

**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: NONE
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4. **First aid measures:**

General advice:	Remove contaminated clothing
If inhaled:	Keep patient calm, remove 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 open, consult an eye specialist.
On ingestion:	Rinse mouth and then drink plenty of water

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5. **Fire fighting measures:**

Suitable extinguishing media : Water spray, dry extinguishing media, foam, carbon di-oxide (CO<sub>2</sub>) Non-flammable and hence no fire hazard.

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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.

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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.

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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:	The usual precautions for the handling of chemicals must be observed.

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9. **Physical and chemical properties:**

Form	:	Liquid Pourable Dispersion
Colour	:	Translucent Yellow
Flash point	:	> 70° C
Ignition temperature:		N.A.
Explosion hazard	:	No explosion hazard
Vapour pressure	:	N.A.
Solubility in water	:	Very thick solution at 2% con.
pH value	:	Approx. 6.5 - 7 (1% solution in water)
Viscosity	:	100- 2000 c.p.

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10. **Stability and reactivity:**

Stable Storage time: Max. 6 months

Hazardous reactions: None provided product is correctly processed

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11. **Toxicological information:** **Non-Toxic**

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12. **Ecological information:**

General Notes:

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

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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.

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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.

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## 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.

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## 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

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**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.

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