

## R 3000 NAJ

Specialty Polyester Resin for Zero Twist Polyester Filament Yarn Sizing

**R 3000 NAJ** is a New Generation Polymer designed for Zero Twist Polyester Filament Yarn Sizing. It replaces Acrylic Polymer solutions.

**R 3000 NAJ** reduces the percentage of size add on to 3.5-7% depending on yarn and type of looms with exceptionally good weaving performance.

Features	Benefits
Structure with perfect combination Polar and non-polar groups	Exceptional adhesion to of polyester surface
Good compatibility	Compatible with size mix preparation
Granular form	User convenience
Exceptional cohesive and percentage adhesive strength	Stronger binding at low add on
airjet looms	Suitable for both waterjet and
High molecular weight	Non-blocking character of size film under High temp. & humidity.

### Specifications:

Physical Form	:	Solid granules
Diluent	:	Water
Solid content	:	98 ± 2%
Nature	:	Anionic

## Application:

A typical recipe to size polyester filament yarns is as follows:

R 3000 NAJ	:	10 kg.
Water (Demineralized water or soft water, total dissolved solids of soft water)	:	90 kg
Total Wt.	:	100 kg.
Note: Solid content of recipe is $\frac{\text{Solid} \times 100}{\text{Total Weight}}$		10.00%

The size add-on expected with normal machine conditions is between 4-4.5%. One may change the level of water depending on wet pick-up to maintain final size add-on between 3.5-7% as per needs.

## Procedure:

- Take 70% of the total water used in the recipe. Start heating and bring it close to boiling.
- Addition of **R 3000 NAJ** should be spread over 20-30 minutes after the temperature has reached 90°C. This ensures easy solubilization. Do not add all the powder at one time.
- Heat further for 1 to 2 hours to dissolve **R-3000 NAJ** completely.
- Part of water, which evaporated during heating, should be replaced by adding equivalent amount of water.
- Also add the remaining 30% of the water. This addition of water will bring down the temperature to 50 - 55°C.
- Allow it to cool to 30-35°C and then start sizing.
- One can use lubricants and antistatic additives.

## Storage:

- Keep the bags of **R 3000 NAJ** in a cool shade. Do not store in direct sun or at a temperature higher than 40°C.
- In case the bags are open and are intended to be stored for a longer time, ensure to tie and seal the mouth to avoid moisture contact.
- Minimum shelf life 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 : **R 3000 NAJ**

**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: **Sulphonated Polyethylene Teraphthalate Powder  
(Polyester Based Resin)**

3. **Possible hazards**

Critical hazards to man and the environment: Non-hazardous

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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 help open, consult an eye specialist, if necessary.
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 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 & 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	:	Granular Powder
Colour	:	Greenish White
Odour	:	No odour
Flash point	:	>200
Ignition temperature:		N/A
Explosion hazard	:	No explosion hazard
Vapour pressure	:	N/A
Solubility in water	:	Soluble in water at 85 - 90°C
pH value	:	N.A.
Viscosity	:	N.A.

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10. **Stability and reactivity**

Conditions to avoid:	Stable
Storage time:	Max. 12 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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