



Cationic Rosin sizing

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Product Category	<ul style="list-style-type: none"> ● Cationic Rosin Sizing ● Rosin Sizing for Printing Paper ● Rosin Sizing for Kraft Paper and Carton Box Paper
Application	<ul style="list-style-type: none"> ● Printing paper manufacturing ● Kraft paper manufacturing ● Retain negative charged pulp fibers ● Electronic attraction
Key Function(s)	<ul style="list-style-type: none"> ● Improve physical strength of paper integrity ● Maximize pulp attraction to be retrieved ● Improve overall physical properties of paper, ● Enhance especially water resistance

What is Cationic Rosin Sizing

Cationic rosin sizing is a type of chemical used in paper manufacturing to improve the paper's resistance to water and enhance its printability. Rosin is a natural resin derived from pine trees, and cationic refers to its positive charge in its modified form. The product is supplied in milky form of white emulsion. Here's a breakdown of its role:

- Water Resistance:** Cationic rosin sizing is primarily used to make paper resistant to water and prevent ink from bleeding. It forms a barrier on the paper fibers, reducing the ability of water to penetrate the surface.
- Improved Printability:** By controlling the paper's surface properties, cationic rosin sizing helps create a smoother and more uniform surface, which is essential for high-quality printing. This enhances the adhesion of ink to the paper.
- Paper Strength:** It can help increase the strength of the paper, especially in terms of wet strength, which is important for certain applications like packaging materials.
- Positive Charge:** The "cationic" aspect means that the rosin molecules are positively charged, which helps them bond more easily to the negatively charged cellulose fibers in the paper. This leads to better retention and more uniform distribution throughout the paper.



For more information of product



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In practice, Cationic rosin sizing is often applied during the papermaking process, typically in the sizing press, where it is applied to the paper web to provide the desired properties. It's commonly used for papers such as newsprint, packaging materials, and certain types of printing papers.

Cationic rosin sizing is typically not used alone in paper manufacturing. It is often combined with other chemicals to enhance its effectiveness and achieve the desired paper properties. Some common additives and chemicals used in combination with Cationic rosin sizing include:

1. Aluminum Sulfate (Alum):

- Alum is frequently used in combination with Cationic rosin sizing to improve its performance. The aluminum ions in alum react with the rosin, forming an insoluble complex that enhances the rosin's ability to bond with the cellulose fibers.
- It helps in improving sizing efficiency, increasing paper's resistance to water, and stabilizing the pH of the paper during production.

2. Synthetic Polymers:

- These are often added to improve the retention of the rosin on the paper fibers, enhance paper strength, and reduce any potential dusting or fiber loss.
- They can also improve the paper's surface characteristics, such as smoothness and printability.



3. Other Sizing Agents:

- Starch and other resins: Sometimes, Cationic rosin sizing is combined with starches or other synthetic resins to further enhance the paper's resistance to water and improve surface properties. This combination can result in stronger paper with better ink adhesion.

4. Retention Aids:

- These chemicals help to retain the Cationic rosin sizing more effectively within the paper pulp, ensuring that the sizing agent remains bonded to the fibers, improving the overall efficiency of the sizing process.

5. pH Adjusters:

- The pH of the papermaking pulp is an important factor for the Cationic rosin sizing process. The pH must be maintained within an optimal range (usually acidic) for effective sizing. Chemicals like sulfuric acid may be used to control the pH.

In summary, while Cationic rosin sizing can be used on its own in certain applications, it is often combined with other chemicals (like alum, synthetic polymers, retention aids, and pH adjusters) to optimize its performance and achieve the desired paper quality. The right Cationic rosin sizing needs to work well and to be compatible with all other ingredients and make paper mills to achieve their operation cost and performance target.

Stellar Unity has collaborated with a large Chinese manufacturer for Paper Chemicals. Therefore, it can manage the supply and minimize unnecessary cost to the paper mill. The quality system of our Cationic Rosin Sizing is controlled through a large scale manufacturing process to balance between performance in use and cost in operation for paper mills.

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