



Wet Strength Agent

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Product Category	<ul style="list-style-type: none"> Wet Strength Agent for Paper Manufacturing
Application	<ul style="list-style-type: none"> Used in paper manufacturing <ul style="list-style-type: none"> Tissue paper Kitchen paper Toilet paper
Key Function(s)	<ul style="list-style-type: none"> Improve fiber strength when wet Suitable paper performance for the right end application

What is Wet Strength Agent

A wet strength agent in paper manufacturing is a chemical additive used to improve the strength of paper when it is wet. Unlike dry strength agents, which enhance paper strength when it is dry, wet strength agents are specifically designed to help paper maintain its integrity and resist tearing, breaking, or stretching when it becomes wet or is exposed to moisture.

Wet strength is particularly important for certain types of paper products, such as tissue papers, packaging materials, paper towels, napkins, and grocery bags, where the paper needs to maintain its strength and structure in moist conditions.

The choice of the right wet strength agent depends mainly on which type of process is currently in use for the paper production. Under neutral and slightly alkaline conditions, the best wet strength agents are the polyamidoamine epichlorohydrin (PAAE) resins, which provide the highest level of wet strength permanence.



Stellar Unity has worked with Chemical Paper company to provide the right PAAE for paper mills. Today, PAAE resins are used in practically all types of wet strength papers, including household products such as paper towels, napkins and tissue; packaging materials as liquid and food packaging, corrugated boxes and paper bags; and specialties as industrial filters, decorative laminates and label papers.

Paper mill by itself is also one of key polluters whereby it has concerns on its own and by its raw materials to use in the mill. The chlorine bleaching process mainly contributes to the AOX pollution of paper mills effluents, PAAE resins with a high level of DCP (1,3-dichloropropane-2-ol) and MCPD (3- monochloropropane-1,2-diol) are also AOX contributors. Therefore considerable efforts have been performed, in order to develop environmentally friendly wet strength resins with a reduced level of DCP and MCPD.

[For more information of product](#)



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How wet strength agent work

Resins (polyamidoamine epichlorohydrin - PAAE Resins):

- **PAAE Resins** (polyamidoamine epichlorohydrin) are among the most commonly used wet strength agents in papermaking.
- **How They act:** These resins chemically crosslink with the cellulose fibers in the paper. The crosslinking forms a three-dimensional network, which makes the fibers less likely to separate and enhances the paper's wet strength by preventing fiber disintegration in water.
- **Advantages:** PAE resins are highly effective in improving both wet strength and dry strength. They are commonly used in tissue paper, packaging, and other products requiring high wet strength.



Our paper chemical partner has researched and continued to do so for over 20 years at the edge of the wet strength synthesis, Stellar Unity offers PAAE resin with high quality and reliable supply, yet a cost effective product and timely logistics management.

Our wet strength agents comply with the high quality requirements of papermakers for tissue, laminates, wall and filter paper production. There is no formaldehyde based material in the product. Please contact our sales representative or business partners on ground to learn and try our wet strength agent.



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