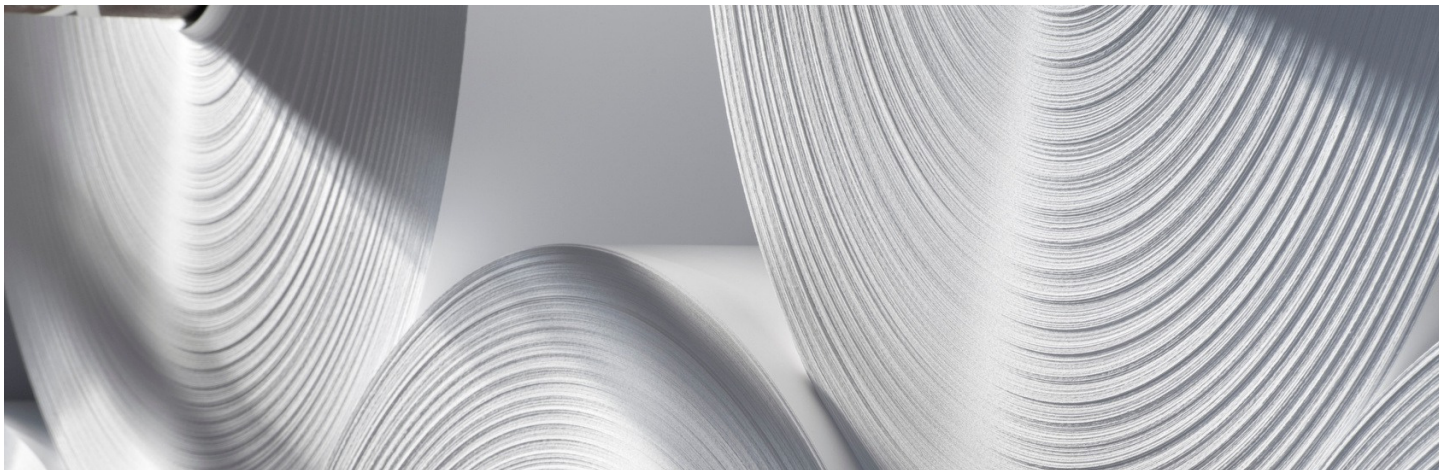




PULP AND PAPER

We offer speciality materials such as silica- and aluminium-based chemistries, which are widely used in the pulp and paper industry due to their effectiveness in improving paper quality and optimising production processes.

Our raw materials include specialised colloidal silicas and nano-sols that serve as retention and drainage aids, surface treatments, sizing agents, and more—enhancing machine efficiency and overall paper quality.



ALUMINUM



Aluminum Hydroxide

Aluminiumhydroxide improves paper quality and supports the manufacturing process.

Primary Use: Filler and coating pigment.

Applications: Enhances brightness, opacity, and printability of paper and provides flame-retardant properties in specialty papers.



Aluminum Sulfate

Aluminiumsulfate (alum) is widely used in the pulp and paper industry due to its effectiveness in improving paper quality and optimizing production processes.

Primary Use: Sizing agent, pH control, retention aid, and pitch control.

Applications: Improves paper strength, water resistance, and printability.

Additional Role: Clarifies process water by acting as a flocculant.



Sodium Aluminate

Primary Use: pH adjustment and coagulant aid.

Applications: Improves the performance of sizing agents and aids in the precipitation of impurities as well as wastewater treatment for phosphorus removal.



Aluminum Oxide

Primary Use: Abrasive in polishing and coatings.

Applications: Used in specialty coatings for high-performance papers. **Additional Role:** Improves thermal and chemical resistance in specialty applications.



Polyaluminum Chloride (PAC)

Primary Use: Coagulant and retention aid. Enhances retention of fibres and fillers, improves drainage, and reduces water consumption.

Additional Role: Effective in pitch control and reducing chemical usage.

COLLOIDAL SILICAS / NANO SOLS



Colloidal Silica / Nano-Silicas COLLOIDAL-SIL™ / GEO-SIL™

Colloidal silicas (nano-silica or nano-sols) offer several benefits across pulp and paper processes—ranging from retention and drainage enhancement to microbial control and surface treatments.

We offer a range of grades with varying solids percentages, pH levels, and other tunable variables.

Recommended Grades: (NS3-5)15; (NS7)15, (NS6)15, (NS8)30, (NS14)40; and (NS20)40

MAGNESIUM



Magnesium Oxide

Magnesium oxide plays a role in the pulp and paper industry, particularly in processes aimed at producing high-quality pulp while minimizing environmental impact. It acts as a neutralising agent and assists in breaking down lignin—the complex polymer that binds cellulose fibres in wood.

Other uses include:

Alkaline Pulping and Bleaching where MgO can help control pH during pulping and bleaching stages, protecting cellulose fibers and preventing excessive degradation. It reduces the formation of unwanted byproducts and enhances pulp brightness, contributing to higher-quality paper. Improves the brightness and durability of the paper and also acts as a filler, enhancing paper opacity and printability.

CLEANING & MAINTENANCE CHEMICALS

Sulfamic Acid

Pulp & Paper Versatile inorganic acid used in pulp and paper processing for equipment cleaning, descaling, bleaching support, and process maintenance applications. Provides effective removal of scale, deposits, and process contaminants while maintaining excellent storage stability.

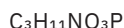


PHOSPHONATES



HEDP (1-Hydroxyethylidene-1,1-diphosphonic acid)

HEDP is used as a scale inhibitor, corrosion inhibitor, and stabiliser in bleaching processes. Prevents calcium carbonate and calcium sulfate scaling in pipes and equipment. Enhances the performance of hydrogen peroxide and chlorine-based bleaching processes.



ATMP (Aminotrimethylene Phosphonic Acid)

ATMP is used for scale control and chelation of metal ions. Application: Reduces calcium and magnesium scaling, particularly in high-temperature environments. Also helps prevent iron deposition.



DTPMP (Diethylenetriamine Pentamethylene Phosphonic Acid)

DTPMP used as a scale inhibitor and dispersant.

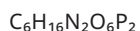
Application: Controls barium sulfate and calcium phosphate scaling in harsh conditions, such as in kraft pulping or high-pH environments.



PBTC (Phosphonobutane Tricarboxylic Acid)

PBTC is used for scale prevention and stabilization of bleaching agents.

Application: Provides thermal stability and works effectively in combination with other phosphonates to prevent scaling.



EDTMP (Ethylenediaminetetramethylene

Phosphonic Acid)

EDTMP is used as a chelating agent and scale inhibitor.

Application: Controls deposits and enhances the efficiency of pulping chemicals by binding with metal ions.



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