



Functional fiber paves the future for pulp and paper industry

Where do you want to use your fibers? Renewing the properties of wood fiber products is a constant challenge for the pulp and paper industry.

Customer benefits

- Adds unique properties to lignin rich fiber: traceable, hydrophobic, and anti-microbial
- Enables manufacturers and end users to customize fibers according to specific needs and requirements
- The value of the traditional paper and board properties can be modified by selecting the fiber's raw material and processing techniques as well as adding new chemicals
- Bonding of chemical components to lignocellulosic fiber materials can be carried out by chemical, enzymatic, and chemo-enzymatic methods.

Competitive advantage

- Properties of fibers can be engineered based on targeted industrial needs
- Enzyme-based methods are superior over purely chemical methods because of surface specificity and the preservation of important chemical and physical fiber properties.
- Enforcing the fiber's native surface properties and adding totally new chemical structures ultimately strengthens the fiber material.
- Can become primary alternatives to plastics and glass fibers

Application and market areas

- Functional fibers offer possibilities to produce tailor-made and innovative paper and board products
- Industries specializing in composite end products such as cars, furniture, bioplastics, and paper products will benefit from this breakthrough
- Special paper manufacturers producing railway, movies, and concert tickets can deliver unique and high quality production
- Filter papers for instance can be manufactured as anti-static wallpaper and dust repellent



Why partner with VTT?

10 reasons for technology partnering with VTT

1. Key factor in Finland's success story with a track record to prove it
2. Licensing and co-venturing opportunities
3. Portfolio of more than 1,000 patents and inventions
4. New business and product concepts based on strong IP and world class research
5. Combined experience of more than 2,000 motivated researchers in eight focused areas of technology
6. Active member in hundreds of scientific & business communities
7. Excellent track record as coordinator and partner in EU projects
8. Collaboration with TOP 50 R&D companies in Finland
9. Global R&D partnership with 50 Fortune 500 companies
10. Market driven multi-disciplinary solutions

Additional information

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