



Enzyme-based functionalisation method to **customize natural fibers**

VTT offers textile manufacturing and finishing companies an enzyme-based functionalisation method that makes it easy to customize natural fibers (e.g. linen, hemp and bamboo) as well as synthetic fibers (e.g. polypropylene, polyesters, polyamide) suitable for specific needs and requirements. This is an ecological choice as less chemicals are being used in the process.

Competitive advantage

Natural fibers:

- Surface specific and preservation of important chemical and physical fiber properties
- Remarkably simple and non-destructive
- Bonding of new compounds to fibers does not involve harsh chemistry
- Textile surfaces can be further modified for desired properties

Synthetic fibers:

- Affordable choice for modification as only the surface of the mass is handled. Examples of surface properties to be introduced to fibers include e.g.
- Anti-repellent
- Hydrophilic
- Antimicrobial
- UV-protection

Application and market areas

Textile industry.

Intellectual property

Patent pending.



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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