BETTER FIBERS TO ALL

CITEX CLOSING CONFERENCE

ÅSA ÖSTLUND, HEAD OF R&D

2024/05/29

TreeToTextile

TREE TO TEXTILE PROCESS

TREETOTEXTILE PRODUCES STAPLE FIBER FROM CELLULOSE TO BE USED IN TEXTILE AND NONWOVEN PRODUCTS

Wood

Wood fiber expected to represent ~7% of the textile fiber production in 2025

Under development:

Textile waste
Agri waste
Other

Textile

Nyense™

Nonwoven

Nyvado™

SAMPLE MATRIX EVALUATED BY TREETOTEXTILE

No.	Sample type	Material	Color	IV	Dissolution	Spinning
101	Pre-consumer	viscose	White 	166	✓	✓
201	Pre-consumer	viscose	Dyed (Imogo)	150	✗	✗
250	Pre-consumer	viscose	Bleached 	80	✓	✗
300	Post consumer	viscose	Bright	157	✓	✓
401	Post-consumer	viscose	Non-bleached 	158	✗	✗
450	Post-consumer	viscose	Bleached 	80	✗	✗
700	Post-consumer	lyocell	Non-bleached	310	✗	✗
750	Post-consumer	lyocell	Bleached	136	✗	✗

RECYCLED MANMADE CELLULOSICS IN TREETOTEXTILE TECHNOLOGY

PURPOSE: To gain understanding on how pulps from recycled MMCF can be used in the TreeToTextile Technology to achieve Fiber-to-fiber.

CONCLUSIONS:

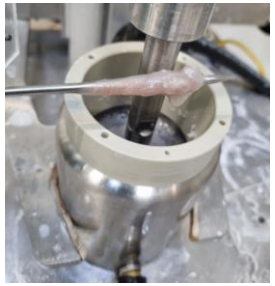
a) Undyed/ bright colored viscose was successfully regenerated in the TreeToTextile Technology
b) The bleaching sequence to reach a white pulp is challenging due to degradation of cellulose chains
c) Dyed fibers and lyocell fibers were unsuccessful in the TreeToTextile Technology
d) Contamination of synthetic fibers is significant

NEXT STEPS:

a) Importance of accurate sorting of recycled goods (colors and material)
b) More specific chemical treatments (on dyes and material/contaminants)


Recycled TreeToTextile fibers from viscose.


Filter cake (synthetic fibers?)



Pictures: Axel Martinsson, RISE

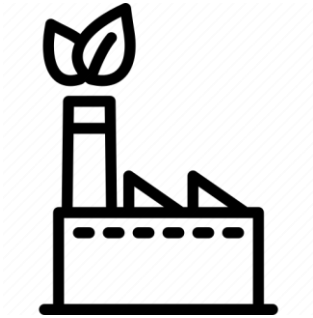
TREE TO TEXTILE AT A GLANCE

Tree to Textile

A Swedish based company, headquartered in Stockholm, supported by strong owners

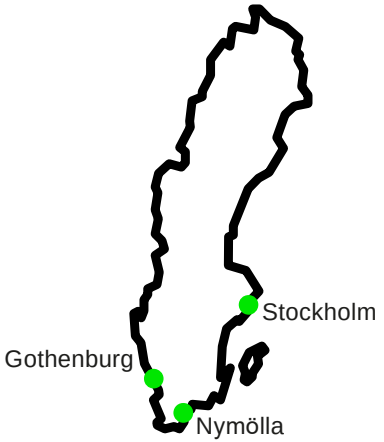
H&M Group IKEA stora enso LSCS Invest

A growing company with a large eco-system of collaboration partners, senior advisors and expert consultants



Demo plant with a capacity of 350 kg/hour in Nymölla. Development lab and pilot plant facilities in Gothenburg

Covered by a strong patent portfolio



Our locations in Sweden

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