

STUDY COMPARING NATURAL AND FAKE FUR BIODEGRADABILITY

NATURAL FUR

THE
RESPONSIBLE
CHOICE

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KEY FINDINGS

- Over the testing period natural fur biodegraded rapidly and at a similar rate to organic matter such as an oak or willow leaf
- Fake fur did not show signs of biodegradation reflecting its synthetic composition
- The tests also revealed partial disintegration of natural fur over the 30 day period whereas fake fur did not disintegrate at all

BACKGROUND

- Fake fur has been promoted as the sustainable alternative to natural fur
- This laboratory experiment was commissioned to explore the biodegradation of natural and fake fur in landfill conditions
- The experiment⁽¹⁾ was conducted by Organic Waste Systems in Ghent, Belgium, a world leading company in the biodegradability and compostability of different types of materials
- The work was commissioned by the International Fur Federation and Fur Europe

EXPERIMENT

- The biodegradability of products in a sanitary landfill or in a solid state anaerobic digestion system is determined through high-rate dry anaerobic batch fermentation
- This method simulates and accelerates the biodegradation process that takes place in landfill
- To evaluate the disintegration of a product in a sanitary landfill or in a solid-state digestion system, test items are added to active inoculum and left to ferment. Each week a piece of test item was removed from the test reactors to assess the disintegration
- The tests were conducted on undyed and dyed mink and fox fur as well as fake fur
- The tests which ran for 30 days was performed according to ISO and ASTM standards (ISO 15985 / ASTM D5511)

RESULTS

BIODEGRADATION

- Biodegradation of the undyed mink fur, undyed fox fur, dyed mink fur and dyed fox fur started immediately
- Amongst the natural furs that were tested undyed mink fur experienced the highest level of biodegradation over the period
- Biodegradation levels of fur were comparable with other natural products such as leaves (oak, poplar, willow)
- The study revealed that over the testing period there was no biodegradation of fake fur

DISINTEGRATION

- It was observed that over the test period dyed/undyed mink and fox fur partially disintegrated
- The fake fur did not show any disintegration, only discolouration



Undyed mink after
4 weeks of disintegration



Fake fur after 4 weeks
of disintegration

(1) High Solids Anaerobic Biodegradation and Disintegration test of Undyed mink fur, Undyed fox fur, Dyed mink fur, Dyed fox fur and Fake fur (May 2018)