

Systems to reduce textile microfibers' contamination

Francisco Belzagui*, Carmen Gutiérrez-Bouzán

INTEXTER – Universitat Politècnica de Catalunya, Spain.

*Corresponding author: francisco.belzagui@upc.edu;

phone: +34 937398 296

Abstract

Microplastics detached from textile garments, called microfibers, are among the main scientific concerns nowadays. These microfibers are detached in every step of a textile article life cycle, from its manufacturing to its final disposition. However, special attention has been put on the particles that are shed from their washing, as it seems to contribute drastically to this pollution. In this sense, some systems have been proposed to reduce the generation of microfibers or to retain the already generated ones. These systems can be classified as “in-drum” and “out-drum” devices, distinguished if they are put inside or outside the washing machine.

This work aims to make a critical assessment of the current systems that have been developed to reduce the microfibers released from the washing machines. Specifically, all the commercial systems were analyzed by discussing their pros and cons to assess the efficiency of these devices.

Keywords: Microplastic, microfiber, water contamination, textile pollution.

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