

# The Microfibre Consortium

Leading the textile industry in reducing microfibre release to protect our environment



## TMC's position on the control of fibre fragmentation, within textile manufacturing wastewater.

The textile manufacturing supply chain consists of thousands of manufacturing facilities in dozens of countries. Although the products and processes may vary greatly from one facility to the next, they all have one thing in common: the ability to shed fibres from textiles into the wastewater discharged from each facility.

As the industry look for best practice to support its drive to mitigate fibre fragmentation, an in-depth, aligned and globally relevant textile manufacturing perspective is paramount. This approach is crucial in ensuring cross industry uptake, effective and measurable impact, whilst upholding a no regrets attitude within the larger sustainability agenda.

The TMC manufacturing task team with consultancy to the larger industry sector, over the course of two years, have developed the guidelines: '*Control of Textile Fibre Fragmentation in Wastewater*'. This document identifies an approach that can be taken across the supply chain to best support change within manufacturing. The scope of work includes industrial wastewater discharge produced within operations of textile, apparel and footwear suppliers with wet processing facilities. Within this work, outreach has been made to engage across the sector whilst working within already established formats and resources, to disseminate guidelines that can be built upon as understanding develops.

**TMC recognizes that the textile and clothing industry is responsible for fibre fragmentation from textiles at both the consumer level and within the manufacturing process. TMC considers a portfolio approach where the capture of fibre loss through the use of waste-water management at a facility level is a complimentary action to the root cause mitigation that can be done at the textile design and development level to prevent loss from occurring.**

**In support of the capture of unintentional fibre loss during manufacture, TMC is proposing a wide, cross industry adoption of the guidelines, '*Control of Textile Fibre Fragmentation in Wastewater*' within the global supply base, so that an aligned and industry wide adoption of these best practices can achieve the greatest impact in a timely manner. TMC's current position is outlined below:**

1. All businesses along the footwear and apparel value chain (i.e. brands, retailers and their supply chain partners) have a responsibility to adopt and adhere to aligned cross industry guidelines to minimize impact from fibre fragmentation.
2. Equal priority shall be placed on both synthetic and natural fibers which both shed during textile manufacturing.
3. Primary focus should be paid to an aligned and formalised approach to the on-site filtration of fibre fragmentation from wastewater generated during textile manufacturing. This applies to manufacturing facilities:
  - a. discharging treated wastewater directly to the environment.
  - b. discharging indirectly through a centralized treatment plant.
  - c. with zero liquid discharge managing sludge produced in a manner that prevents the release of fibres into the environment.
4. Although out of scope of the current TMC agenda, it is recommended that centralised effluent treatment plants (CETP) consider the methods and approaches outlined within the full guidelines to mitigate release of fibres generated primarily from domestic sources.

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5. It is understood that each manufacturing facility is unique, so a range of mitigation solutions are required. TMC encourages the use of varying technologies used either in isolation, or in conjunction with each other to best balance the type of loss and business needs, with achievable impact. After initial filtration steps have been taken to remove larger loss, finer loss should be removed with either Membrane Bioreactors (MBR) or Ultrafiltration (UF) technology.
6. Each of the fibre fragmentation mitigation approaches outlined in the guidelines provide additional benefits to wastewater treatment than simply removing the fibre fragments from the wastewater. As such it is recommended that any ROI is made as part of the larger needs of the facility.
7. TMC does not currently recommend a pass / fail compliance approach to the fibre fragmentation size or scale of loss from textile wastewater within a manufacturing facility since there is no current aligned and agreed methodologies in place. As the fibre fragment ecosystem matures, the intent will be to establish compliance criteria to identify impact and drive results throughout the supply chain.

This positioning statement forms a time relevant response to ongoing work in this area. The *Manufacturing Task Team*, as part of the *Microfibre [2030 Commitment and Roadmap](#)* continues to support moving the agenda forwards. Further information and can be found [here](#).