Brussels, 27 May 2026

RE: Ecodesign for apparel: urgent need for requirements to address microplastics from synthetic textiles

Dear Mr Matjaž Malgaj,
Dear Ms Giulia Del Brenna,

We, the undersigned organisations, are writing to urge the European Commission to take action to address the pressing issue of microplastic emissions from textiles and to express our concerns regarding the lack of proposed measures in the Preliminary Study published by the Joint Research Centre (JRC) in December 2025.

Over 210,000 tonnes of microplastics from synthetic textiles enter the marine environment each year globally.[1] Synthetic fibres made of plastic polymers such as polyester, nylon, and polyamide disseminate and persist in the environment. They fragment but do not biodegrade, and contaminate marine and terrestrial ecosystems, causing long-lasting pollution with adverse effects on several species.[2] [3]

Microplastic can act as a significant carrier of hazardous chemicals present in textiles - both a potential source of direct human exposure and of environmental pollution.[4] [5] Research has linked microplastic exposure to adverse effects in humans[6] who consume contaminated food and beverages and inhale airborne microplastics.[7]

Textiles are the fourth largest source of microplastic pollution within the European Union.[8] The EU Strategy for Sustainable and Circular Textiles highlights that the *"Commission plans to address the different lifecycle stages at which synthetic fibres are shed into the environment [...] notably through binding design requirements to be introduced under the Ecodesign for Sustainable Products Regulation"*. The Strategy further highlights that measures will include a focus on targeting manufacturing processes as well as other actions.

The Ecodesign for Sustainable Products Regulation (ESPR) offers a comprehensive framework to limit microplastic pollution from synthetic textiles. The JRC preliminary study in preparation of a delegated act on apparel does not, however, put forward any potential performance requirements or even information requirements, to reduce the ever-growing microplastic pollution from apparel. Contrary to the conclusions of the JRC (which point to a lack of data), existing research has identified hotspots and emission sources across the life cycle of textiles - as well as design and manufacturing techniques that can reduce shedding rates, which can inform policy recommendations to reduce microplastic pollution in the environment.[9] [10] [11] [12]

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[4] Rafa, N., Ahmed, B., Zohora, F., Bakya, J., Ahmed, S., Shams Forruque Ahmed, S. F., Rahman, M., Chowdhury, A. A., and Almomani, A. (2024). Microplastics as carriers of toxic pollutants: Source, transport, and toxicological effects. Environmental Pollution, 343, https://doi.org/10.1016/j.envpol.2023.123190
[5] Fadillah, D., and Long, B. (2025). Microplastics as emerging vectors of combined chemical toxicity: an urgent call for integrative toxicological research. Toxicology Communications, 9(1). https://doi.org/10.1080/24734306.2025.2571357
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[8] European Commission: Directorate-General for Environment (2023). EU action against microplastics. Publications Office of the European Union. https://data.europa.eu/doi/10.2779/917472
[9] Hernandez, E., Nowack, B., and Mitrano, D. M. (2017). Polyester Textiles as a Source of Microplastics from Households: A Mechanistic Study to Understand Microfiber Release During Washing. Environmental Science & Technology, 51(12):7036-7046. https://doi.org/10.1021/acs.est.7b01750
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[11] Gliaudelytė, U., Persson, M., and Daukantienė, V. (2025). Impact of textile composition, structure, and treatment on microplastic release during washing: a review. Textile Research Journal, 95(1-2):220-232. doi:10.1177/00405175241260066
[12] Manshoven, S., Smeets, A., Malarciuc, C., Tenhunen, A. (2022). Microplastic pollution from textile consumption in Europe. ETC/CE Report 1/2022.

The European Commission has the objective to reduce microplastic pollution by 30% by 2030[13] and has developed new frameworks to address sources, such as pellets and tyres. Similarly, the European Commission must therefore provide concrete policy options in the ESPR to ensure the transition to lower-pollution fabrics and the adoption of design and manufacturing techniques that reduce shedding rates.

The discussion on methodologies or standards to assess the biodegradability of fragments from non-synthetic textiles should not be a reason to postpone actions to address known plastic pollution impacts of synthetic textiles and reduce their microplastic emissions. We understand that the JRC is concerned about understanding the effects on the environment of fibre fragments shedding from non-synthetic textiles. However, microplastics from synthetic textiles persist in the environment as plastic pollution, have well-documented adverse effects, and we therefore caution against mixing the topic of microplastics with a more generic degradation issue.

Enough scientific evidence indicates that the EU should act now to mitigate current and future risks to ecosystems and human health posed by microplastics emitted from synthetic textiles. Where an activity raises threats of harm to the environment and human health, measures must be taken, even when the risk is not determined with acute precision. The JRC's reliance on 'lack of data' inverts this principle. **Microplastic pollution from synthetic textiles is an identified environmental threat**; this threat mandates action, not inaction pending perfect data.

We therefore call on you to include the following policy options within the impact assessment:

Measures to reduce emissions during manufacturing

Such as mandatory pre-washing and effluent treatment – because the manufacturing stage accounts for around half of the emissions from textiles across their life-cycle and influences emissions during use.[10 14 15 16 17] Given the high initial shedding rate associated with early washing cycles, controlled industrial pre-washing conditions should be implemented prior to market placement. Further development of ecodesign requirements should consider specific design requirements for fibre manufacturing, weaving, and finishing processes - based on an assessment of manufacturing techniques using the existing ISO standard 4484 part 2. It is important that brands and operators buying products from manufacturers contribute to the effort of reducing microplastic emissions in the supply chain, including financially, so the costs of ecodesign implementation are not merely passed to other actors in the supply chain.

Measures to reduce emissions from apparel

Such as a maximum shedding threshold and other design requirements, for instance on the choice of yarn and length of fibres. These should be informed by a standardised testing, utilising the existing ISO standard 4484 part 1 and part 2 (or alternatively part 3 and part 2), which should be mandated under the delegated act in order to undertake a market assessment of shedding rates. Product performance requirements should be subject to periodic revision, based on the best available evidence to phase out the worst-performing textiles. This aligns with the process undertaken for tyres under the Euro-7 regulation. It is necessary to also conduct ISO 4484 part 2 to identify the microplastic emission from synthetic textiles. Otherwise, we recommend applying ISO standard 4484 part 1 only to apparel made of synthetic materials beyond a certain fibre content.

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[17] Hossain, M.I., Zhang, Y., Haque, A.N.M.A. and Naebe, M. (2025). Fibrous Microplastics Release from Textile Production Phases: A Brief Review of Current Challenges and Applied Research Directions. Materials, 18(11), p.2513.

Information to consumers and civil society

Ensure transparency regarding the presence of plastics in textile products - all items made fully or partly of synthetic fibres should be required to display a mandatory microplastics warning pictogram on the ESPR label. Such marking should be expanded to household fabrics and carpets. The introduction of the pictogram would not require the development of new methodology, as its inclusion would only depend on the fibre composition of the product. The precise thresholds for the synthetic fibre content necessary to trigger the obligation to affix the pictogram should not exceed 50% and should progressively decrease over time. Furthermore, the digital product passport should include information on the shedding of microplastics during the washing of the garment, based on ISO 4484 part 1 and part 2 (or alternatively part 3 and part 2). These information requirements on microplastic shedding should be introduced in addition to the recommended performance requirements, as their complement, and should be used to modulate EPR fees of textile products.

By 2040, microplastic pollution will make up almost 80% of overall plastic pollution in high-income economies, making this a priority for the European Union as part of its objective to reduce microplastic pollution by 30% by 2030.[18] In addition to ecodesign measures under the ESPR, we also encourage the Commission to take a more holistic and systemic approach to the problem by considering measures that reduce the sector's dependence on synthetic fibres.

We are happy to share further data and scientific studies and would welcome a meeting to discuss these recommendations.

Yours sincerely,
Luca Boniolo, Programme Manager - ECOS

On behalf of:

Changing Markets Foundation · ClientEarth · Common Seas · ecos · EEB European Environmental Bureau · eia environmental investigation agency · Gallifrey Foundation · hej support health · environment · justice · Naturvernforbundet · No Plastic in My Sea · Ocean Now! · Pew · Rethink Plastic · Seas At Risk · Surfrider Foundation Europe

[18] The Pew Charitable Trusts (2025). Breaking the Plastic Wave 2025. An Assessment of the Global System and Strategies for Transformative Change. https://www.pew.org/en/research-and-analysis/reports/2025/12/breaking-the-plastic-wave-2025.