Fluoropolymers
Product Group of Plastics Europe

New Study Confirms Fluoropolymers are Effectively Managed at their End-of-Life

Brussels, 11 May 2026 – The Fluoropolymers Product Group (FPG) has published a new study, prepared by Ramboll Management Consulting, **examining the end-of-life management of fluoropolymers in the EU, including their occurrence in waste streams, treatment routes and emissions. It is the second in a series of FPG publications (which also includes an assessment of alternatives published last week and a socioeconomic analysis) aimed at building a comprehensive, evidence-based foundation for chemical regulation in the EU.**

The study finds that fluoropolymers represent a **negligible share of total EU waste, less than 0.01% by mass** (approximately 23,500 tonnes per year), **and rarely occur as a separate waste-stream.** Because they are typically used in very small quantities and often embedded as coatings, seals, linings or insulation within complex products, **their end-of-life fate is determined by the treatment of host products rather than by the material itself.**

The study confirms that the dominant end-of-life route is hazardous waste incineration, which accounts for approximately **50% of collected fluoropolymer waste**. Crucially, it finds that under regulated operating conditions, fluoropolymers are **destroyed with a 99.9999% mineralisation rate**, with water-soluble PFAS emissions remaining below **1 gram per tonne of material treated**. Municipal waste-to-energy, which handles a further 22%, achieves comparable destruction performance. Landfilling accounts for approximately 13% and continues to decline in line with EU waste policy. Recycling is technically feasible, but the potential of post consumer recycling is constrained by low volumes, integration into complex products, contamination, limited sorting infrastructure, market barriers and regulatory uncertainty.

The report also considers the upstream contribution of fluoropolymers to waste prevention. It stresses that, according to downstream user feedback, fluoropolymers **extend component and system lifetimes by factors typically in the range of 3 to 10 times**. In many cases, small fluoropolymer-based components such as gaskets and seals protect much larger systems, creating leverage effects on total waste generation well beyond the component's own mass.

"Fluoropolymers are a negligible waste stream that can be effectively managed at end of life and delivers significant upstream benefits," said Caroline Andersson, Director of FPG. "This study shows that their end-of-life profile is fundamentally different from the PFAS of regulatory concern and further supports the case for a full exemption of fluoropolymers in the proposed EU PFAS restriction".

The findings of the study are clear. Effective end-of-life management, negligible waste and emissions contribution, combined with the intrinsic properties of these materials and industry commitments for responsible manufacturing mean that fluoropolymers are not an unacceptable risk. FPG urges for proportionate regulatory approaches that reflect these characteristics and thus calls for a full exemption of fluoropolymers from any blanket restriction. FPG supports a regulatory approach that targets emissions rather than materials and recommends a risk-based restriction framework that recognises the voluntary manufacturing commitments as a basis for alternative risk management.

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About Fluoropolymers Product Group (FPG):

The FPG is part of Plastics Europe, the industry association representing European polymer producers. It operates in accordance with Plastics Europe governance rules, including Competition Compliance rules. Plastics Europe covers the EU, plus UK, Norway, Turkey and Switzerland.

About Fluoropolymers:

Fluoropolymers are advanced materials that provide unmatched durability, chemical and thermal resistance, and stability in extreme environments. Their unique set of properties makes them essential in many industries, from healthcare and renewable energy, to transportation, aerospace and semiconductors.