

EU Restriction Procedure Lead in PVC

April 2022

Currently, the restriction procedure for lead in PVC is intensively re-discussed at European level. Already at the end of 2015, the European PVC industry completely phased out the use of lead in virgin material as part of the voluntary commitment VinylPlus®. Especially against the background of increasing imports of PVC containing new lead (source: [ECHA](#)), the industry therefore, in principle, supports this restriction process strongly. **However, for the purpose of an operational circular economy, the industry calls on the legislator to continue allowing established PVC recycling in precisely regulated exceptional cases.** Thereby, lead that is already present in the EU market is handled in the best possible way being controlled in terms of health and the environment.

In current times of high energy prices, shortages of raw materials and the political drive for energy-efficient renovation of buildings, the industry has set itself the goal of using as much recycled PVC as possible in production - thereby strengthening the circular economy and reducing CO₂ emissions.

Our request is set against the following background:

PVC building waste has already been recycled for more than 25 years. Today, mechanical recycling is well established and around 730,000 tons of PVC are recycled per year in Europe, of which more than half is used in the controlled rigid PVC cycle of building products (window/door profiles, building profiles, roller shutter profiles, pipes) [source: [VinylPlus](#)]. By now, the operational circular economy in the sector is used and referenced as a positive example for many other applications and products [source: [ReBauPro study](#)].

In practice, this means:

- Removed end-of-life PVC profiles are collected, then shredded and separated into different fractions by recyclers. The recycled PVC (rPVC-U) is sent to manufacturers of building products (window/door profiles, building profiles, roller shutter profiles, pipes) for processing in the free market ([video window recycling](#)).
- Pipe waste from construction sites are also collected, then shredded by recycling companies and sent to plastic pipe manufacturers for processing in the free market ([video pipe recycling](#)).
- For decades rPVC-U has been used throughout Europe in various profiles and in plastic pipes in the construction sector, thus successfully implementing the circular economy
- According to DIN EN 1452-2, the use of recycled material is not permitted in PVC pipes for drinking water.

A lead restriction without exemptions for certain recyclate-containing applications would have profound effects on this operational circular economy, especially since the lead is firmly embedded into the rigid PVC matrix (source: [FABES study](#)): For increasing amounts of end-of-life PVC, the only options would be incineration, landfilling or export to non-EU countries. Currently, around 650 million PVC windows are installed in existing buildings in Europe, of which around 80% are lead stabilized (source: EPPA). Furthermore, long-term investments already made in recycling and rPVC-U converting in the PVC value chain would be lost as write-offs.

Legal and planning certainty are urgently needed to enable the required new industry investments into more recycling and thus the circular economy.

We therefore welcome the Commission's move to restrict the use of virgin lead while continuing to allow the use of lead-containing recyclates for the purposes of the circular economy. **We assess the socio-economic effects of this draft restriction's details as follows:**

Temporary circular economy:

- An exemption for the continued use of rPVC-U for 10 years, while not scientifically justified, provides a minimum level of legal certainty to allow current activities to remain economically viable.

Review of framework:

- A **review of the exemption after 5 years** is also scientifically unjustified, but understandable in the political context.

Threshold:

- Limiting a maximum lead content of **1.5%** in the recycled material is also scientifically unfounded, but recycling pre- and post-consumer waste would remain economically viable. Old PVC profiles contain a maximum of 2% lead, which is firmly embedded in the PVC matrix (see above).

Controlled vs. Closed Loop:

- **Associations support controlled-loop recycling, whereby rPVC-U from building products is re-used in building products (window/door profiles, building profiles, shutter profiles, pipes).** In 2020, 75 kt of rPVC-U were used in pipes and 200 kt of rPVC-U were used in building profiles (source: TEPPFA, EPPA).
- While closed-loop recycling is partly practiced in the profile industry, this is not limited to window profiles, but includes ALL profile waste. Different construction profiles cannot be distinguished from each other, moreover the PVC formulations are similar.
- However, the PVC circular economy requires the support of all actors in the value chain. An unjustified downsizing of an application market, which has proven itself over the years, would damage this established system.

Traceability and end-user information:

- According to Art 33a REACH, manufacturers inform (end) consumers about lead content and, since 2021 via the **SCIP database**. Therefore, the industry already fulfills this criterion, **but remains an interested stakeholder in the discussions around Product and Building Passport initiatives**. A print-on label would not be visible to the end consumer.

Soft PVC:

- Recycling of cables is an established process with annual volumes of about 115,000 tons in 2020 (source: [VinylPlus](#)). Old cables may have higher lead content than 0.1% in this process. Restricting the use of soft PVC recyclates without an appropriate transition period would have significant socio-economic impacts. This would lead to more energy recovery, an increase in costs and CO2 emissions due to more virgin material being used. It is technically impossible to separate and distinguish cables with and without lead in the waste streams generated and would furthermore not be economically viable. **VinylPlus® therefore proposes a 5-year transition period** to continue recycling for a limited time, to evaluate new recycling and separation technologies, and to give municipalities and industry time to create other recycling routes.

The current legislative initiative of the EU Commission possibly provides the EU Parliament with the last opportunity in this legislative period to ban imports of new products made from lead-containing PVC and, at the same time, to enable the sustainable handling of previously used substances (legacy additives) in a targeted manner through circular, controlled management.



The European PVC Profiles and related Building Products Association EPPA represents the manufacturers of PVC window systems and related building products in Europe. About 25,000 employees process about 1,4 million tonnes of PVC creating a turnover of €4 billion with profile systems and building products. Based in Brussels, EPPA provides a common platform for bundling national activities in the fields of PVC window technology, recycling, environment and public affairs. www.eppa-profiles.eu
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TEPPFA is The European Plastic Pipe and Fittings Association founded in 1991 with headquarters in Brussels. TEPPFA's 14 multinational company members and 15 national associations across Europe represent 350 companies that manufacture plastic pipes and fittings for above and below ground Building and Infrastructure. TEPPFA's members have an annual production volume of 3 million tonnes directly employing 40,000 people with € 12 billion combined annual sales. TEPPFA positions itself as polymer neutral. <https://www.teppfa.eu/>
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VinylPlus is the European PVC industry's commitment to sustainable development. Through VinylPlus, the European PVC industry is creating a long-term sustainability framework for the entire PVC value chain, improving PVC products' sustainability and circularity and their contribution to a sustainable society. It covers the EU-27, the UK, Norway and Switzerland. VinylPlus represents over 200 companies of PVC resin and additives producers and converters and coordinates a network of around 150 recyclers. VinylPlus has invested around 120 million euros in sustainability in Europe since 2000. Building upon a track record of 20+ years of progress and achievements, VinylPlus recently launched VinylPlus 2030, its next 10-year Commitment to Sustainable Development. With its renewed Commitment, VinylPlus aims to contribute proactively to addressing the global sustainability challenges and priorities.
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EuPC is the leading EU-level Trade Association, based in Brussels, representing European Plastics Converters. EuPC now totals about 51 European Plastics Converting national and European industry associations, it represents close to 50,000 companies, producing over 45 million tonnes of plastic products every year. The European plastics industry makes a significant contribution to the welfare in Europe by enabling innovation, creating quality of life to citizens and facilitating resource efficiency and climate protection. More than 1.6 million people are working in about 50,000 companies (mainly small and medium sized companies in the converting sector) to create a turnover in excess of 280 billion € per year.
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EuroWindow was founded as an international non-profit Association, in order to represent the interests of the European window, door and facade (curtain walling) sector. Our 19 national associations speak for European window, door and facade manufacturers that are in direct contact with consumers, and thereby having large insights on consumers' demands and expectations. We are at the forefront interacting with dealers, installers and consumers buying windows and doors, and the companies behind the associations cover selling all over Europe.
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Plastics Recyclers Europe (PRE) is an organization representing the voice of the European plastics recyclers who reprocess plastic waste into high quality material destined for production of new articles. Recyclers are important facilitators of the circularity of plastics and the transition towards the circular economy. Plastics recycling in Europe is a rapidly growing sector representing €3bn in turnover.
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