Current certification of PFAS under OEKO-TEX® STANDARD 100

Technical information

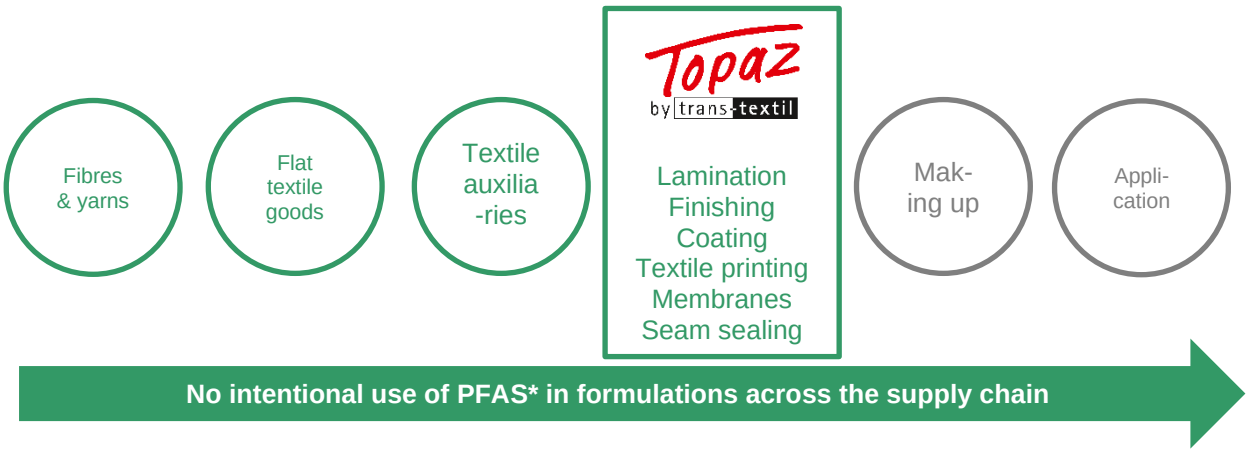
Last revised: 29 January 2025

What changes are being made to certification under OEKO-TEX® STANDARD 100 Product Class II?

At the start of 2024, the international OEKO-TEX® community added a new limit for total fluorine content (TF) for the regular certificate under STANDARD 100 *Product Class II* to their protocols. At present, this value must not exceed 100 mg/kg (this unit is occasionally also represented as ppm = “parts per million”) for a certified (intermediate) product.

The targeted use of per- and polyfluoroalkyl substances (PFAS/ PFC) is also banned. Consequently, all partners along the supply chain are required to confirm that there is no intentional use of PFAS in formulations either in components or finishing processes in compliance with the OEKO-TEX® certification.

The testing criteria have also been modified to enable PFAS to be ascertained in a more targeted manner. The testing method under prEN 17681-1:2024, which has been in force since 1 October 2024, enables specialist laboratories to perform analyses to identify PFAS and verify compliance with limits.



What does this mean in terms of PFAS?

Based on the current limits, testing methods and obligations, **products that are certified under *OEKO-TEX® STANDARD 100 Product Class II***

…do not incorporate components containing PFAS
such as ePTFE-based membrane systems or oil-repellent fluorine-based (C6) finishings

...in terms of targeted use in the formulation
can be considered as “PFAS-free”.

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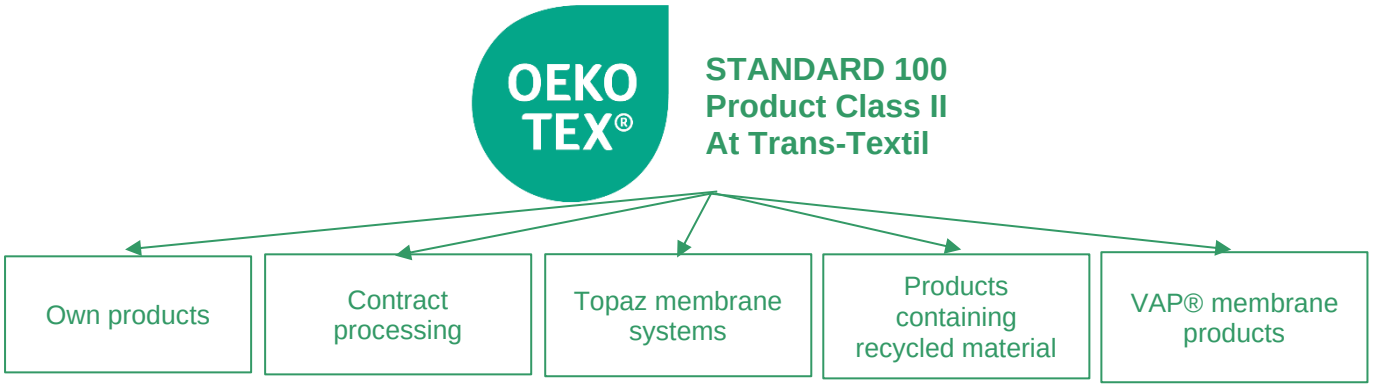
What is the timescale for implementing the certification?

The new protocols for all Trans-Textil GmbH certificates will be implemented progressively as the specific certificate comes up for renewal, for instance on 31 January 2025 for the certificate for Trans-Textil GmbH's own products.



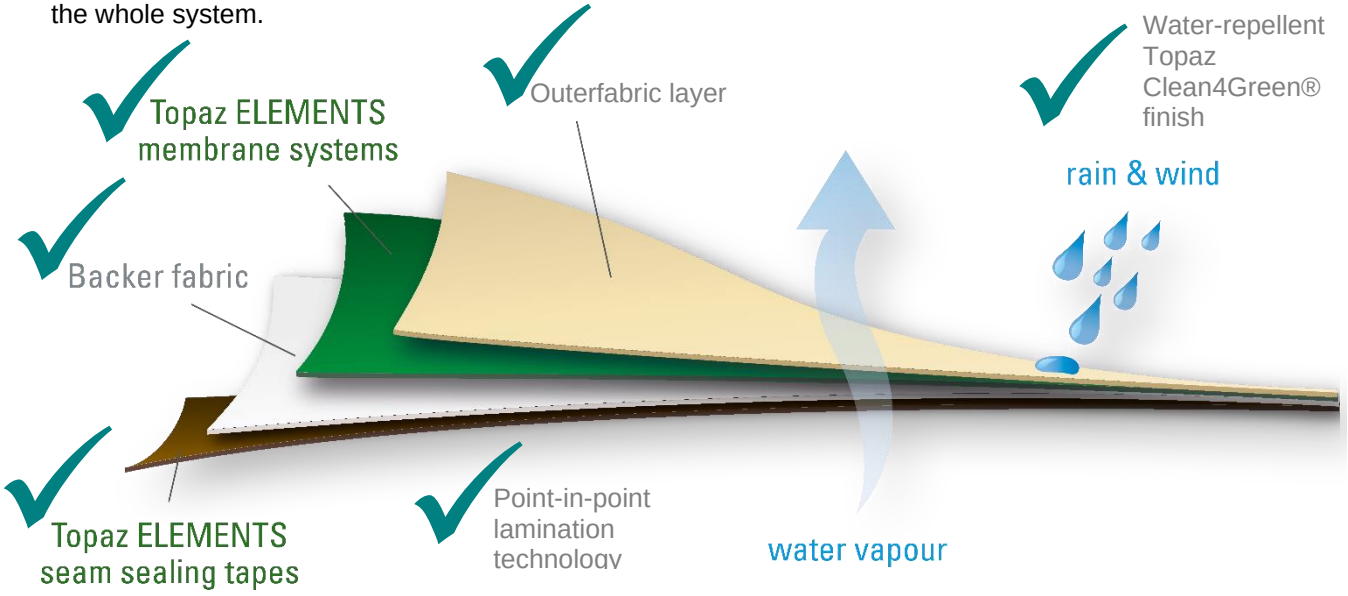
Are there any alternatives to the use of PFAS?

Membrane systems: Our in-house developed Topaz TT251 membrane system based on high-tech PU (polyurethane) is available as an alternative that has been tried and tested over many years, also in certified multilayer composites for many areas of application.

Moreover, depending on the requirements profile, we also offer other PFAS-free, compact and microporous membrane systems based on polyurethane (PU) and polyester (PES) as components for multilayer textile laminates.

Finishes: In applications that call for water repellency alone, we deploy our DWR (durable water repellency) finish from the Clean4Green® series, which Trans-Textil introduced to the market as early as 2009 and has continuously expanded ever since.

Alongside our processing technologies, we offer functional textiles without the intended use of PFAS across the whole system.



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Is it possible to continue using ePTFE-based membrane systems and oil-repellent finishes containing fluorine under the OEKO-TEX® certification?

Yes, via the PSA supplement!

A separate certificate may be issued to certify functional textiles for personal protective equipment (PPE) and medical products with ePTFE-based membrane systems and oil-repellent C6 finishes in accordance with the OEKO-TEX® STANDARD 100 within the scope of the supplement "PPE and materials for PPE".



In certain areas of application involving certified personal protective equipment (PPE), medical products and technical applications, current technology is not able to produce alternatives that are equivalent to components containing fluorine, which are needed for instance to achieve certain protective or performance features to meet standardised requirement criteria.

This affects both ePTFE-based membrane systems and the oil-repellent finish that can only be produced using C6 formulas containing fluorine. Trans-Textil will continue to supply both technologies for the relevant technical areas responsibly and in the familiar quality in accordance with the applicable legislation and certifications, while also observing high ecological standards.

PFHxA (C6) restriction under REACH

The European Union issued a restriction of the total of PFHxA and its salts with a limit of 25 ppb and the sum of PFHxA-related substances with a limit of 1000 ppb with effect from 19 September 2024. This mainly restricts the circulation of products with an oil-repellent C6 finish.

The following transitional periods apply

- until 10 October 2026: in the clothing sector for the general public and
- until 10 October 2027: for technical textiles for the general public.

The restriction does not mean a general ban on the use or processing of C6 finishes, but is limited to the circulation of products for areas of application outside the defined exceptions. The detailed provisions can be found in the specific official publications.

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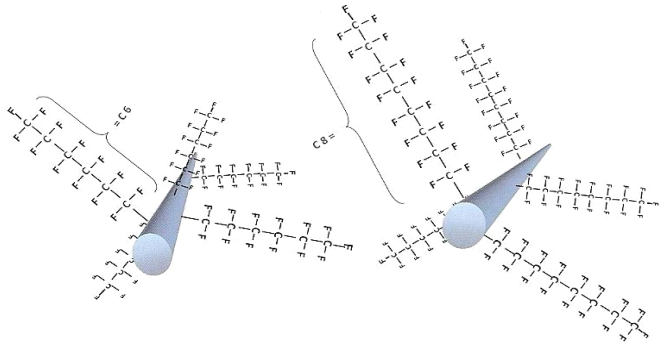
*What are PFAS and what are they used for?



The abbreviation PFAS stands for per- and **p**oly**f**luoro**a**lkyl **s**ubstances These are artificial substances with ingredients including carbon and fluorine. By definition, they contain at least a CF2 or CF3 group. More than 10,000 individual substances are covered by this definition.

In textile products they occur in the form of an oil- (and water-)repellent surface finish and form the main component of ePTFE-based membrane systems.

About OEKO-TEX®

OEKO-TEX® is the brand name for an international, independent testing and certification system for textile products. The OEKO-TEX® community publishes an annual update of the applicable testing criteria, limits and protocols for its certifications and standards based on the latest scientific findings and legal developments to ensure a consistently high product quality.

The OEKO-TEX® STANDARD 100 certifies compliance with all currently valid limits that go well beyond the statutory requirements and consequently confirms that our product portfolio is safe for humans and the environment across the entire supply chain.

OEKO-TEX® performs the analytical tests for substances classified as harmful required for this certification directly on the product and/or all components and processes used in manufacture.

Notes

Please note that the information presented here has been researched and compiled with the utmost care. However, errors or inaccuracies cannot be ruled out. If in doubt, please review the original sources of the individual protocols.

Trans-Textil GmbH products are declared fit for use for a specific area of application and used exclusively on the basis of information provided by the purchaser of our products and at their sole responsibility.

Please contact our product management team if you would like to explore the opportunities for using PFAS-free alternatives such as polyester (PES) and polyurethane (PU)-based Topaz membrane systems, or also water-repellent finishing formulas from the Clean4Green series.

Our environmental and materials management team will also be happy to answer any of your questions on this subject at any time.

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