

PFAS Regulation

Background information

Frenzelit product information: See last section.

PFAS is a blanket term for “perfluoroalkyl and polyfluoroalkyl substances”. These include all chemical molecules that contain at least one $-CF_3$ or $-CF_2$ group, i.e. at least one fully fluorinated carbon atom. Due to this broad definition, “PFAS” encompasses a very large group of more than 4,000 chemicals, some of which differ significantly in their structure and properties. However, many of the chemicals in the PFAS group have harmful effects on our environment, as they are very long-lived and persistent. These substances are also known as “forever chemicals” and cannot be broken down, or can only be broken down very slowly, resulting in an accumulation of these substances in the environment.

Individual substances from this group have already been banned due to their harmful effects and persistence. For example, the use of perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) was banned many years ago under the EU’s POP (Persistent Organic Pollutants) Regulation. A number of other substances in the PFAS group are already covered by the REACH Regulation. The use and distribution of additional long-chain, perfluorinated carboxylic acids with 9 to 14 carbon atoms (C9-C14 PFCA), as well as their salts and precursors, will also be restricted under the REACH Regulation from February 2023 onwards.

Frenzelit can already confirm today that none of these previously regulated substances are contained in our products or used in their production.

On July 15, 2021, the five EU member states Germany, the Netherlands, Denmark, Sweden and Norway submitted a proposal for a general EU-wide ban on all PFAS chemicals. On February 7, 2023, a restriction proposal drawn up by these five countries was published. The proposal called for a dossier defining the exact framework of the ban. A 6-month public consultation phase was launched on March 22, during which interested companies that manufacture, process or use substances containing PFAS were able to submit relevant information.

The current ban dossier includes a complete ban on all chemicals in the PFAS group, including fluoropolymers such as PTFE or FKM. As things currently stand, there are only a few exceptions, e.g. for active substances in human and veterinary medicinal products, biocides and plant protection products. The dossier also describes two possible restriction options. Option 1 (RO1) is much stricter and includes a complete ban on all PFAS substances as early as 18 months after the regulation enters into effect, i.e. possibly as early as from the end of 2025. Option 2 (RO2), which is currently considered more likely, also provides for a ban on all PFAS substances after 18 months. However, additional transitional periods of 5 or 12 years, limited in time and

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specific to certain types of use, are considered depending on the scope of application. Extensions such as these are planned, for example, for food packaging, fuel cell membranes or certain refrigerants and coolants. When the public consultation phase ends, there will be a further opinion and proposal phase, followed by a final decision.

PFAS in expansion joints

Depending on the area of application and design of the expansion joint, PFAS-listed components such as PTFE or fluoroelastomer (FKM) may be included.

During the manufacture and subsequent operation of the expansion joints, the PTFE or FKM semi-finished products generally do not cause any harmful emissions or PFAS problems. This only occurs during the manufacture of semi-finished products.

If the law bans manufacturing processes in the EU and stops the production and processing of PTFE and FKM semi-finished products, alternative materials will need to be used. Frenzelit is already developing these materials with other manufacturers.

Exceptions for certain applications may be possible but will undergo a thorough examination by lawmakers. Currently, it is not possible to make any statement on the matter because the bill is still being drafted.

Some expansion joints are already manufactured without PFAS. Please contact us if you require detailed information about your product.

We are happy to answer any application engineering questions you may have. Simply get in touch with your contact at Frenzelit or write us an email or call us at:

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