

Who are the ESA?

The European Sealing Association (ESA) is an association of European (+ UK) based companies which manufacture Sealing Devices.

- Established in 1992, Registered in Germany & UK
- Non profit Organisation
- Sealing Device Groups :
Mechanical Seals, Packings, Gaskets, Elastomeric & Polymeric Seals and Expansion Joints.
- We have 50 Members, 2 Research Organisations, Amtec (Germany) and Cetim (France)

What are PFAS Sealing Devices?

Engineered components designed to contain gases or liquids and used to prevent fugitive emissions. Typical uses would be process plant applications such as water/chemical/pharmaceutical through to machinery and equipment such as aero engines and automotive.

Broadly Speaking:

They prevent leaks and in so doing protect the environment.

Used in controlled engineered applications such as valves, pumps and pipeline systems for specific applications.

PFAS are used in critical environments where chemical resistance/thermal stability and mechanical integrity are essential in static or dynamic applications.

PFAS Industry Sectors and Uses

- Our PFAS Taskforce developed a spreadsheet with references to PFAS chemicals used in sealing applications
- The spreadsheet is publicly available and updated periodically.
- It can be used by local and National authorities.
- A Position Paper is circulated in conjunction with this data.

[illegible]

❖ **Main PFAS used by ESA Members:**

PTFE, FKM, FFKM, PVDF, FEP, PFA, PCTFE, FEPM,

❖ **Main Industries (no particular order or exhaustive):**

Water, Food, Power, Hydrogen, Oil, Petrochemical, Chemical, Power, Aerospace, Automotive, Pharmaceutical, OE (pump, valve, compressor), Military, Paper, Semiconductor,

Unique attributes of seals and search for FP alternatives

- **Seals are critical components** enabling most strategic sectors to operate safely and efficiently
- **Seals are mission-critical** and need to operate in difficult or demanding applications, thus the **absence of available alternatives**
- Sealing Devices are manufactured and approved to a host of **design standards** aimed at reducing leaks to the atmosphere. These cannot be altered without extensive research and redesign. The risk of failure/leak cannot be compromised.
- In some sectors such as Aerospace the approval process and implementation of FP alternatives (when available) will take decades.

ESA's analysis of the current Restriction Proposal

- ✓ Restricting PFAS is necessary to protect human health and the environment
- ✗ **No reference to sealings applications** = sealing devices would virtually be banned as of 2026, making its end-sectors unable to operate. **A specific reference to sealing devices is necessary due to the large number of sectors and applications we serve.**
- ✗ **Lack of clarity regarding maintenance and repairs.** Seals are subject to maintenance and repair cycles. Impossibility to repair critical seals would have an enormous impact on various key sectors.
- ✗ **Interlink between sectors undermining proposed derogations:** ex - some sealing devices contain electronics. Electronics don't have any derogation = some sealing devices could not be placed in the market, even where there is a derogation.

ESA's position and initiatives

1) The ESA requests regulators to consider an exemption for FP used in Sealing Devices. Main reasons are the critical role of seals for the EU economy, the absence of alternatives, and the harsh environment in which our devices need to operate to ensure the safety of industrial processes.

2) The ESA wishes to Support the Reulators and is actively working on key initiatives

- **Socio-Economic Analysis (SEA) specific to seals:** high response rate from Upstream manufacturers and users of PFAS Sealing products as well as downstream users, which reflects the EU's industry reliance on our devices to operate.
- **Dialogue with the ECHA and national authorities:** ESA will submit a detailed response to the ECHA's public consultation and submit the results of the SEA to stakeholders.
- **Cooperation with our end-users and suppliers:** constant alignment with our end-sectors' representatives to ensure awareness on the use of seals in various critical applications.
- We believe that an initiative which focuses on **End of Life Treatment** would be beneficial.