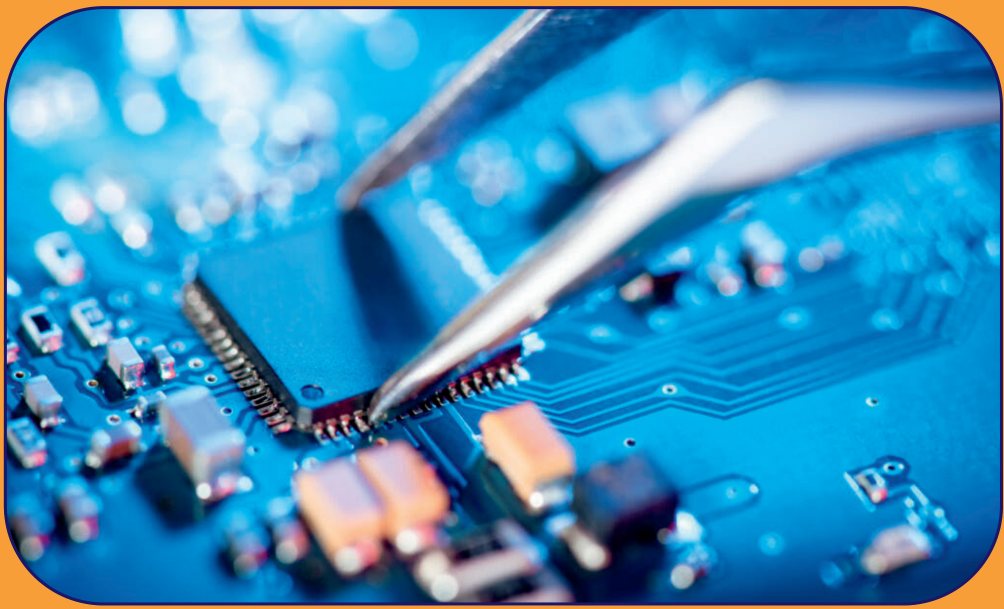
Electronics



Electronic devices are an important part of everyday life. PFAS are crucial in many current and future device applications, both in production processes and operating systems. By way of example, let's take a closer look at a smartphone.

- **Data centre cooling and connectivity**
- **Mobile Operating System (OS)**
- **Sound system protection**
- **Battery performance**

Smartphones are unable to store the vast amount of data they receive on a daily basis. They rely on data centres.

Data centres reach high internal temperatures due to their intense and constant activity. 38% of their energy is diverted to air cooling systems. By immersing their IT hardware in fluorochemical liquid, there is no need for chiller-based air cooling, and energy consumption is reduced by 95%.

The chips that operate all electronic devices are made with semiconductors. They are responsible for the computing power, battery management, tactile and optical sensors.

Fluoropolymers and fluorotelomers are key in semiconductor manufacturing, protecting the wafer from getting burned during the etching process.

***The base upon which the etching process is performed.**

Expanded polytetrafluoroethylene (ePTFE) membranes safeguard built-in speakers and microphones. They ensure proper air and sound flow, while simultaneously repelling liquid and particles to prevent the deterioration of the sound system.

Lithium-ion batteries are currently the most adequate solution for extended smartphone lifespan and performance.

These batteries rely heavily on fluoropolymers, which improve their energy density and optimisation, and avoid them from self-discharging when idle.

Lithium-ion battery


Safeguarding data


Built-in sound system

Mobile Operating System