



FUEL SYSTEMS

Sustainable Aviation Fuels

Solution Support Document: [Aerospace](#)

Pall is committed to helping the aviation industry with its CO₂ emission reduction targets. Sustainable Aviation Fuels (SAFs) are helping the aerospace industry achieve their **Net Zero CO₂ emissions goal** and Pall fuel filters are compatible with the approved SAF blends.

SAFs are [synthetic jet fuels](#) derived from non-petroleum feed stocks that are:

- Carbon neutral, i.e., do not add to atmospheric CO₂ (The CO₂ emissions from aircraft and from the manufacture of SAFs are balanced by the CO₂ removed from the atmosphere to produce the SAF feed stocks.)
- Not produced by impacting the food supply chain
- Not produced by de-forestation

[What are 'Drop in' fuels?](#)

Currently, SAFs are blended with petroleum-based jet fuels (10% to 50%) to produce 'Drop in' replacement fuels that can be used in existing aircraft fuel systems. Development is under way for aircraft to use 100% SAFs by 2030.

[What are the production pathways for SAFs?](#)

Currently, there are 3 primary production pathways for SAFs:

- a) Hydroprocessed Esters and Fatty Acids (HEFA)
- b) Alcohol to Jet (ATJ)
- c) Direct Sugar to Hydrocarbon Conversion (DSHC)

There are also other processes to produce synthetic jet fuels, e.g. the Fischer-Tropsch method, but any synthetic jet fuel that is derived from fossil fuels, by definition, cannot be a SAF.

[What aerospace standards do they meet?](#)

All new fuels have to pass through an extensive test, certification and review process. Once approved, the fuel is added to ASTM standard D7566 - Standard Specification for Aviation Turbine Fuel Containing Synthesized Hydrocarbons.

Currently there are seven qualified blends of conventional jet fuels and synthetic sustainable aviation fuels.

The SAE AE-5 committee is working on an information report, AIR6148 - Synthetic Jet Fuels from Non-Petroleum Feed Stocks.

[Are Pall fuel filters compatible with the approved SAF blends?](#)

All current Pall fuel filters are compatible with the approved SAF blends.