

## Solvents That Should Not be Used with PEEK Column Filters - Tech Information

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### Overview

Cogent pre-column filters are manufactured using a high-purity PEEK housing and a stainless-steel internal filter element. While stainless steel is broadly solvent-resistant, PEEK has known chemical compatibility limitations.

To ensure safe operation and preserve the integrity of the filter, it is essential to avoid solvents that can degrade or damage PEEK components.

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### Solvents That Should NOT Be Used

Any solvent incompatible with PEEK should not be used with Cogent Column Filters. These include, but are not limited to:

- DMSO (Dimethyl sulfoxide)
- Methylene chloride (Dichloromethane)
- Concentrated THF (Tetrahydrofuran)

These solvents can cause swelling, softening, or chemical attack of PEEK, leading to compromised sealing, structural instability, or leakage under pressure.

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### Why PEEK Incompatibility Matters

Using incompatible solvents may result in:

- Deformation or cracking of the PEEK housing
- Loss of mechanical strength
- Leakage or failure under system pressure
- Contamination of downstream components
- Shortened service life of the filter and potentially the column

To maintain safe operation, always verify solvent compatibility with PEEK when designing or modifying HPLC methods.

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### Recommended Best Practices

- Review solvent compatibility charts for PEEK before use
- Avoid prolonged exposure to borderline or aggressive solvents
- If high-strength or incompatible solvents are required, consider alternate filtration materials or configurations.



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