Septa guide Leaflet

Chromatography

Each type of analysis requires a specific vial and septum. If there are certain criteria that are critical to the analysis, choosing the right septum could be mandatory.
The guidelines in table 1 are able to assist you in choosing the right combination.

- The temperature range of the septum should not be exceeded to prevent chemical decomposition.
- Analytical purity correlates with the inertness of the septa material.
- Consider the resealability whenever multiple injections are performed.
  Natural rubber has the highest resealability but the analytical purity is low due to coring.
- The hardness of the material is an important factor if the injection needle is subtle.

Table 1: Septum selection guide

Material	Temperature range (°C)	Analytical purity	Resealability	Hardness
PTFE	-200 / 250	Very high	No resealability	Very hard
Silicone/PTFE	-60 / 200	High	Medium	Soft
Foam (PE)/PTFE	-50 / 80	Medium	High	Soft medium
Butyl rubber/PTFE	-40 / 120	Medium	Medium	Medium hard
Butyl rubber	-40 / 120	Medium low	Medium	Medium
Natural rubber/PTFE	-40 / 120	Low	Very high	Hard

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