

# Septa guide

	Temperature resistance from / to	Analytical purity	Fragmentation due to hardness and molecular structure (coring)	Hardness (needle penetration)	Resealability (in case of multiple injections)
PTFE virginal	-200 °C / +260 °C	very high		very hard (but very thin material)	no resealability
Natural rubber / PTFE	-40 °C / +120 °C	low	high, big particles	very hard	high
Red Rubber / TEF (FEP)	-40 °C / +110 °C	medium	medium	medium hard	medium
Butyl	-40 °C / +120 °C	medium	medium	medium hard	medium
Butyl / PTFE	-40 °C / +120 °C	medium	medium	medium hard	medium
Silicone / PTFE	-60 °C / +200 °C	high	low to medium	soft	low to medium
PTFE / Silicone / PTFE	-60 °C / +200 °C	high	very low	soft	very low

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Waters®: Waters Corp (USA); TurboMatrix™: PerkinElmer (USA); Merck®: Merck (Germany)

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MACHEREY-NAGEL products are suited for QUALIFIED PERSONNEL ONLY!

MACHEREY-NAGEL products shall in any event be used wearing adequate PROTECTIVE CLOTHING!

MACHEREY-NAGEL products shall exclusively be used in an ADEOUATE TEST ENVIRONMENT.

MACHEREY-NAGEL does not assume any responsibility for damages due to improper application of our products in other fields of application.

The user has to ensure that the products used are suitable for the intended application.

### **General remarks**

All information is subject to technical changes. All product data are subject to the currently valid specifications.

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FEP is a certain type of PTFE lamination and stands for Flourinated Ethylene Propylene (Teflon). TEF, FEP and PTFE are all special kind of PTFE laminations which have the same chemical resistance.

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