

Materials



Acrylic
+ complete transparency
- limited chemical resistance



Peek
+ very good chemical resistance
- not transparent



Teflon
+ excellent chemical resistance
- mechanically soft



COP*
+ very good chemical resistance
+ complete transparency
* only 10 mm and 100 mm flow cells currently available



Stainless Steel
+ mechanical durability
+ excellent resistance to organic solvents
- poor resistance to aqueous and saline solutions



Ultem
+ good chemical resistance
+ partial transparency

Physical Parameters

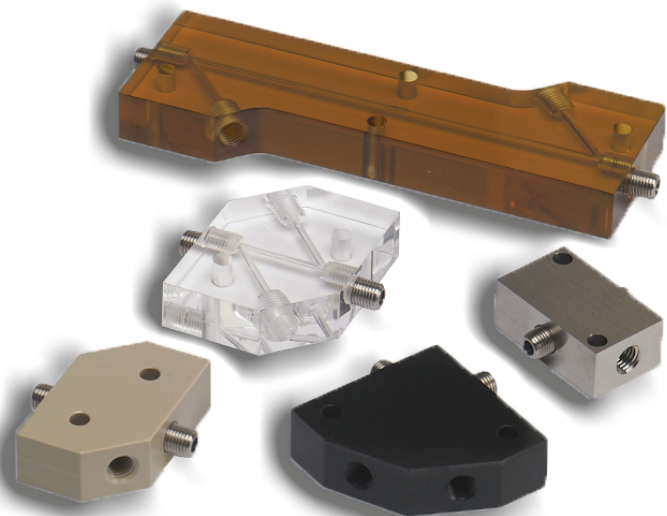
	PEEK	Stainless Steel	Teflon	Ultem	Acrylic
Max Temperature (C)	100	100	100	70	100
Pressure (psi)	100	100	100	100	100

Window Transmittance

Material	Wavelength (nm)
Quartz	350 - 1000
Sapphire	190 - 5000

Internal Volume

Path Length (mm)	Internal Volume (µL)
2.5	2
5	13
10	26
20	52
50	130
100	260
2.5 µvol	2
5 µvol	3
10 µvol	6
20 µvol	12
50 µvol	30
100 µvol	60



Assorted flow cells

Material Resistance to Chemicals

Chemical Resistance

Good	Okay	Bad	Sapphire Windows Required

	Acrylic	COP	PEEK	Stainless Steel	Teflon	Ultem
ACIDS						
Acetic						
Hydrochloric	< 35%					
Hydrofluoric						
Nitric						
Phosphoric						
Sulfuric	< 15%					
BASES						
Ammonia						
Potassium Hydroxide (50%)						
Sodium Hydroxide						
DETERGENT SOLUTIONS						
ORGANICS, MILD						
Isopropyl Alcohol (<50%)						
Methanol						
ORGANICS, INTERMEDIATE						
Acetone						
Acetonitrile						
ORGANICS, STRONG						
Benzene						
Chlorinated Hydrocarbons						
OXIDIZERS						
Hydrogen Peroxide (<40%)	< 30%					
Sodium Hypochlorite						
PHOSPHATE BUFFERED SALINE						