

Flow Cell Specifications

SMA-Z Cell Series

MATERIALS



PEEK

- + good chemical resistance
- + biocompatible



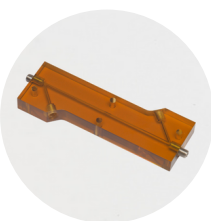
PS

- + good transparency
- + good internal reflection



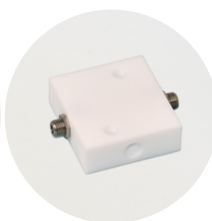
ACRYLIC

- + complete transparency



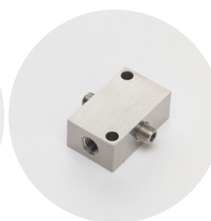
ULTEM

- + good chemical resistance
- + filters UV light



TEFLON

- + best chemical resistance



STEEL

- + mechanical durability
- + excellent resistance to organic solvents

PHYSICAL PARAMETERS

	PEEK	PS	ACRYLIC	ULTEM	TEFLON	STEEL
Temperature (C°)	100	100	100	100	100	300
Pressure (psi)	100	100	100	100	100	100

WINDOW TRANSMITTANCE

Window Material	Wavelength Range (nm)
UV Fused Silica	190 - 1100
Sapphire*	170 - 5500
Fluorescence-free Sapphire	170 - 5500

*Standard sapphire can fluoresce when illuminated with UV light. If this will present a problem for your application, we recommend the fluorescence-free sapphire.

INTERNAL VOLUME

STANDARD

Path Length (mm)	Internal Volume (µL)
2.5	2
5	13
10	26
20	52
50	130
100	260

MICRO-VOLUME

Path Length (mm)	Internal Volume (µL)
2.5	2
5	3
10	6
20	12
50	30
100	60

MATERIAL RESISTANCE CHART

CHEMICAL RESISTANCE LEGEND

GOOD	OKAY	BAD	SAPPHIRE WINDOWS REQUIRED

	PEEK	PS	ACRYLIC	ULTEM	TEFLON	STEEL
ACIDS						
Acetic						
Hydrochloric		<20%	<35%			
Hydrofluoric						
Nitric						
Phosphoric						
Sulfuric			<15%			
BASES						
Ammonia		<30%				
Potassium Hydroxide (≤50%)						
Sodium Hydroxide		<50%				
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						