

MEDICAL GRADE PLASTICS COMPARISON

	Udel 1700 Polysulfone ¹	Radel 5500 PPSU ^{1,‡}	Ultem PEI HU1000 ²	Ultem PEI Blend HU1004 ²	PEEK
STERILIZATION TOLERANCE*					
Steam @ 134° C	■	■	■	■	■
EtO Gas	■	■	■	■	■
Vaporized H ₂ O ₂	■	■	■	■	■
Hi-Energy Gamma	■	■	■	■	■
PHYSICAL PROPERTIES					
Tensile Strength, MPa	70.3	70	110	95	95
Tensile Modulus, GPa	2.48	2.34	3.35	3.47	3.5
Elongation at Break, %	50-100	60-120	60	100	20-30
Flexural Strength, MPa	106	105	160	151	148
Flexural Modulus, GPa	2.69	2.41	3.4	2.99	3.7
Izod Impact, notched, J/m	69	69.4	53	70	91
Heat Deflection Temp., °C	174	207	192	196	157
Specific Gravity	1.24	1.29	1.27	1.28	1.3
ISO 10993 COMPLIANCE					
Bodily tissue, fluids contact	< 24 hrs	< 24 hrs	< 24 hrs	Up to 29 days	< 24 hrs
COLORS					
Transparent natural	Light Yellow	Amber	Amber	Amber	
Transparent colors	■	■	■	■	
Opaque colors	■	■	■	■	■
PROCESSING					
Injection molding	■	■	■	■	■
Extrusion –Stock Shapes	■	■	■	■	■

*Multiple cycles

Data sources: ¹Syensqo; ²SABIC

[‡]Same properties for all Radel 5000 series grades

