

## ZEONEX® 790R Medical Grade

Cyclo-Olefin Polymer resin with a high Tg (161.7 °C), optimal for higher temperature applications. Compatible with EtO, Gamma irradiation, vaporized hydrogen peroxide and steam/autoclave sterilization.

Property	Value	Unit	Test Standard
<b>Physical Properties</b>			
Density	1.022	kg/m <sup>3</sup>	ASTM D792
Melt flow rate (MFR) (280 °C, 21.18 N)	6.7	g/10min	JIS K719, ISO 1133
Water absorption (23 °C-sat)	0.01	%	ASTM D570
Water vapor transmission (40 °C, 90% rh, @100µm thickness)	1.1	g/(m <sup>2</sup> ·day)	ASTM F1249
Oxygen transmission (23 °C, 0% rh, @100µm thickness)	463.8	cm <sup>3</sup> / (m <sup>2</sup> ·day·atm)	ASTM D3985
<b>Mechanical Properties</b>			
Tensile modulus (1 mm/min)	386	kpsi	ISO 527
Tensile stress at yield (5 mm/min)	10636	psi	ISO 527
Tensile stress at break (5 mm/min)	7581	psi	ISO 527
Tensile stress (5 mm/min)	10636	psi	ISO 527
Tensile strain at break (5 mm/min)	43	%	ISO 527
Flexural modulus	363	kpsi	ISO 178
Flexural strength	16969	psi	ISO 178
<b>Thermal Properties</b>			
Glass transition temperature (20 °C/min)	161.7	°C	JIS K7121
DTUL @ 1.82 MPa	142.8	°C	ASTM D648
<b>Electrical Properties</b>			
Volume resistivity	3.15E+16	Ω·m	IEC 62631-3-1
<b>Optical Properties</b>			
Deg. of light transmission (t = 3mm)	91.5	%	ASTM D1003

Typical properties. Not to be used for purposes of establishing specification(s).

COP medical grades (ZEONEX®5000, ZEONEX®690R, ZEONEX®790R, ZEONOR®1020R) have been assessed for compliance with USP Class VI <87>, <88> and <661.1>, ISO10993, EU 3.1.3 and 3.1.5, and JP 7.02. FDA DMF and more information available upon request.