

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
Physical Properties			
Density	1.022	kg/m³	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/(m²-day)	ASTM F1249
Oxygen transmission (23 °C, 0% rh, @100µm thickness)	463.8	cm³/ (m²·day·atm)	ASTM D3985
Mechanical Properties			
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
Thermal Properties			
Glass transition temperature (20 °C/min)	161.7	°C	JIS K7121
DTUL @ 1.82 MPa	142.8	°C	ASTM D648
Electrical Properties			
Volume resistivity	3.15E+16	Ω·m	IEC 62631-3-1
Optical Properties			
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.

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