

LEXANTM RESIN OQ4005

REGION ASIA

DESCRIPTION

High Viscosity, UV-stabilized PC for ophthalmic lenses.

TYPICAL PROPERTY VALUES

Revision 20181012

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	64	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	60	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	78	%	ASTM D 638
Tensile Modulus, 50 mm/min	2300	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	96	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2310	MPa	ASTM D 790
Flexural Stress, yield, 2 mm/min	97	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D 4812
Izod Impact, unnotched, -30°C	NB	J/m	ASTM D 4812
Izod Impact, notched, 23°C	910	J/m	ASTM D 256
Izod Impact, notched, -30°C	128	J/m	ASTM D 256
THERMAL			
Vicat Softening Temp, Rate B/50	145	°C	ASTM D 1525
HDT, 1.82 MPa, 6.4 mm, unannealed	129	°C	ASTM D 648
CTE, -40°C to 40°C, flow	6.06E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.16E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow	0.77	%	SABIC method
Mold Shrinkage, xflow	0.77	%	SABIC method
Water Absorption, (23°C/sat)	0.14	%	ISO 62
Melt Volume Rate, MVR at 300°C/ 1.2 kg	8	cm ³ /10 min	ISO 1133
OPTICAL			
Light Transmission, 2.54 mm	87	%	ASTM D 1003
Haze, 2.54 mm	0.4	%	ASTM D 1003
ELECTRICAL			
Dielectric Constant, 1.1 GHz	2.8	-	SABIC method
Dissipation Factor, 1.1 GHz	0.0063	-	SABIC method
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	2 – 4	hrs	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Maximum Moisture Content	0.02	%	
Melt Temperature	280 – 310	°C	
Nozzle Temperature	270 – 290	°C	
Front - Zone 3 Temperature	280 – 310	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	80 – 110	°C	

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