

Dayson Polymers, LLC
Diap. (Diapolyacrylate Co. Ltd.)
Average Physical Properties of PMMA
ACRYPET MF#001

Test Item	Test Method	Condition	Metric Units	Results	US Units	Results
Melt Flow Rate	D1238	230°C 3.8 kg.	g/19 min	14		
Tensile Strength (Rupture)	D638	ASTM 1	kg/cm ²	670	psi	9,529
Elongation at Rupture	D638	ASTM 1	%	4		
Flexural Modulus	D790	1/4"	kg/cm ²	3.1 x 10 ⁴	psi	44.09 X 10 ⁴
Molding Shrinkage	D955		%	0.2-0.6		
Impact Strength	D256	1/4" notch	kg.cm/cm	1.6	ft-lb/in	.368
Specific Gravity	D792			1.19		
Heat Distortion Temp.	D648	18.56kg	°C	83	°F	181.4
Rockwell Hardness	D785	M scale		90		
Optical Light Transmittance Total	D1003	3.2mm	%	93		
Refractive Index	D542			1.49		
Water Absorption	D570	24 hrs.	%	0.3		
Thermal Specific Heat		Cal/g/°C		0.35	ft-lb/lb°F	272
Coefficient of Linear Thermal Expansion	D696		cm/cm/°C	6 x 10 ⁵	in/in-°F	3.33 X 10 ⁵
Coefficient of Thermal Conductivity	D177	Cal/sec. cm.°C/cm		5 x 10 ⁴		
Vicat Softening Temperature	D1525	1 kg.	°C	98	°F	208.4
Modulus of Elasticity	D638	ASTM 1	kg/cm ²	3.3 x 10 ⁴	psi	46.937 X 10 ⁴
Bending Strength	D790	1/4"	kg/cm ²	1000	psi	14223
Compressive Strength	D695		kg/cm ²	1000	psi	14223
Falling Ball Impact	D6717		cm	115	ft.	3.77