

SUMIPEX® EP

PMMA

Sumitomo Chemical Co., Ltd.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt flow index, MFI	0.7	g/10min	ISO 1133
Temperature	230	°C	-
Load	3.8	kg	-
Molding shrinkage, parallel	0.4	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Stress at break	76	MPa	ISO 527
Strain at break	4	%	ISO 527
Flexural modulus, 23°C	3100	MPa	ISO 178
Charpy notched impact strength, +23°C	1.3	kJ/m ²	ISO 179/1eA
Rockwell hardness	M 100	-	ISO 2039-2

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	101 ^[ann.]	°C	ISO 75-1/-2
Vicat softening temperature, B	109	°C	ISO 306
Coeff. of linear therm. expansion, parallel	70	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	HB	class	IEC 60695-11-10

ann.: annealed

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	3.1	-	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Electric strength	20	kV/mm	IEC 60243-1

Optical properties	Value	Unit	Test Standard
ISO Data			
Haze	0.5	-	ISO 14782
Luminous transmittance	92	%	ISO 13468-1, -2

Other properties	Value	Unit	Test Standard
Water absorption	0.3	%	Sim. to ISO 62
Density	1190	kg/m ³	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	70 - 80	°C	-
Pre-drying - Time	4 - 6	h	-
Mold temperature	60 - 85	°C	-
Zone 1	210 - 220	°C	-
Zone 2	220 - 240	°C	-
Zone 3	225 - 245	°C	-
Screw speed	30 - 70	rpm	-
Injection pressure	140 - 160	MPa	-
Back pressure	1.1 - 1.4	MPa	-
Holding pressure	20 - 100	MPa	-

Characteristics**Processing**

Injection Molding, Other Extrusion

Applications

Automotive, Packaging

Special Characteristics

U.V. stabilized or stable to weather, Transparent

Regional Availability

North America, Europe, Asia Pacific

Chemical Resistance

Alkali Resistance, General Chemical Resistance, Oil Resistance