SUMIPEX® MGSS

PMMA — Sumitomo Chemical Co., Ltd.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt flow index, MFI	**11**	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	**73**	MPa	ISO 527
Strain at break	**2**	%	ISO 527
Flexural modulus, 23°C	**3100**	MPa	ISO 178
Charpy notched impact strength, +23°C	**1.3**	kJ/m²	ISO 179/1eA
Rockwell hardness	**M 95**	-	ISO 2039-2

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**95**[ann.]	°C	ISO 75-1/-2
Vicat softening temperature, B	**104**	°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/m³	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**80 - 85**	°C	-
Pre-drying - Time	**4 - 6**	h	-
Mold temperature	**60 - 85**	°C	-
Zone 1	**210**	°C	-
Zone 2	**215 - 225**	°C	-
Zone 3	**220 - 235**	°C	-
Screw speed	**40 - 60**	rpm	-
Injection pressure	**140 - 160**	MPa	-
Back pressure	**0.9 - 1.4**	MPa	-
Holding pressure	**20 - 80**	MPa	-

Characteristics

Processing

Injection Molding

Chemical Resistance

Alkali Resistance, General Chemical Resistance, Oil Resistance

Special Characteristics
U.V. stabilized or stable to weather, Transparent

Features
Light Guiding

Applications
IT / Business Machine, Electrical and Electronical

Regional Availability
North America, Europe, Asia Pacific