

Product Data Sheet

SUMITOMO PMMA

MH

Polymethyl Methacrylate, Heat Resistant

Applications	General purpose grade suitable for injection moulded housewares, automotive tail lights, optical lens, as well as for extrusion sheets, pipes, and rods.
Characteristics	Excellent heat resistance, excellent extrusion processability, high clarity, excellent weather resistance.
Typical Processing Conditions	Extrusion : L/D 30 - 35, barrel 200°C - 245°C, die 235°C - 245°C Injection : pre-drying 80°C - 90°C 4 hours, barrel 240°C - 260°C, mould 60°C - 85°C Annealing temperature : 75°C - 85°C, 4 hours

Typical Properties

Physical		Value	Unit	Method
Melt Flow Rate	230°C, 3.8kg	2.0	g/10min	ISO 1133
Specific Gravity		1.19	-	ISO 1183
Water Absorbtion		0.3	%	ISO 62
Optical		Value	Unit	Method
Refractive Index		1.49	-	ISO 489
Total Light Transmittance		92	%	ISO 13468-1
Haze		< 0.5	%	ISO 14782
Mechanical		Value	Unit	Method
Tensile Strength	at Break	76	MPa	ISO 527-2
Tensile Elongation	at Break	4	%	ISO 527-2
Flexural Strength		120	MPa	ISO 178
Flexural Modulus		3100	MPa	ISO 178
Impact Strength, Charpy	notched	1.4	kJ/m ²	ISO 179-1
Thermal		Value	Unit	Method
Coefficient Of Linear Expansion		7 x 10 ⁻⁵	1/°C	ISO 11359-2
Vicat Softening Temperature		109	°C	ISO 306
Heat Deflection Temperature	1.82 Mpa, annealed	101	°C	ISO 75-2Af
Electrical Property		Value	Unit	Method
Surface Resistivity		> 10 ¹⁶	Ω	IEC 60093
Volume Resistivity		> 10 ¹⁵	Ω cm	IEC 60093
Insulation Resistance		> 10 ¹⁵	Ω	IEC 60167
Dielectric Strength		20	kV/mm	IEC 60243-1
Dielectric Constant	1MHz	3.1	-	IEC 60250
Other		Value	Unit	Method
Mold Shrinkage		0.2 - 0.6	%	ISO 294-4
Hardness	Rockwell M	100	-	ISO 2039-2
UL Flammability		HB	-	UL94

Manufacturer

MH is manufactured in Saudi Arabia by Rabigh Refining & Petrochemical Co. (Petro Rabigh).
Petro Rabigh is an ISO 9001, ISO 14001, and ISO 45001 certified company.

Regulatory Compliances

Unmodified MH complies with most of the common regulatory in the industry for its intended applications.
Please contact your nearest SCA representative for more information.

Restriction of Hazardous Substances

The substances regulated under EU Directive 2011/65/EC, and its amendments, on RoHS in electrical and electronic equipment are not used in the manufacturing process, and are therefore not expected to be present in the product.

Storage and Handling

MH is supplied in 25kg bags, 750kg jumbo bags, or bulk containers. It is advisable to store in a well-ventilated storage facility, protected from rain, direct exposure to sunlight, temperature, and dust.

Moisture may accumulate inside the packaging if there is a significant fluctuation in ambient temperature and high relative humidity. If this occurs, customer is strongly advised to dry the resin prior to use. Direct exposure to sunlight and excessive ambient temperature may affect the properties, appearance, and odour characteristic of the resin.

It is recommended to process MH within 6 months upon receipt.

Please refer to the Safety Data Sheet (SDS) for information regarding industrial health and safety issues.

Disposal and the Environment

SCA prioritises environmental management in all our operations in responsibility and respect towards the community and the environment.

Disposal of MH should at all times comply with the local and regional environmental protection and waste disposal regulations.

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