

## Hippe PMMA

Category : Polymer , Thermoplastic , Acrylic (PMMA) , Acrylic, Optical Grade, Molded

### Material Notes:

Components made of PMMA are brilliantly transparent. Outstanding aging stability and weathering resistance. Good surface hardness. Abrasion-resistant. Physiologically safe. High strength. Easily tintable. Information provided by Hippe.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Hippe-PMMA.php](http://www.lookpolymers.com/polymer_Hippe-PMMA.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.18 g/cc	1.18 g/cc	DIN 53 479
Moisture Absorption at Equilibrium	0.60 %	0.60 %	Absorption of humidity in standard operating environment; DIN 53 715
Water Absorption at Saturation	2.0 %	2.0 %	DIN 53 495

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	180 MPa @Time 30.0 sec	26100 psi @Time 0.00833 hour	DIN 53 456
Tensile Strength	60.0 MPa	8700 psi	DIN 53 455
Elongation at Break	3.0 - 10 %	3.0 - 10 %	DIN 53 455
Tensile Modulus	3.00 GPa	435 ksi	DIN 53 457
Charpy Impact, Notched	1.80 J/cm <sup>2</sup>	8.57 ft-lb/in <sup>2</sup>	DIN 53 453

Thermal Properties	Metric	English	Comments
CTE, linear	70.0 µm/m-°C	38.9 µin/in-°F	
Specific Heat Capacity	1.47 J/g-°C	0.351 BTU/lb-°F	
Thermal Conductivity	0.190 W/m-K	1.32 BTU-in/hr-ft <sup>2</sup> -°F	
Maximum Service Temperature, Air	100 °C	212 °F	Continuous use
	100 °C	212 °F	Short Periods
Deflection Temperature at 0.46 MPa (66 psi)	100 °C	212 °F	ISO-R 75 Method B
Deflection Temperature at 1.8 MPa (264 psi)	60.0 °C	140 °F	ISO-R 75 Method A
Glass Transition Temp, Tg	105 °C	221 °F	dynamic; DIN 53 736
Flammability, UL94			

Thermal Properties	HB Metric	HB English	Comments
Optical Properties	Metric	English	Comments
Transmission, Visible	90 %	90 %	transparent; thickness not quantified

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	DIN 53 482, VDE 0303, Part 3
Dielectric Constant	3.4 @Frequency 1.00e+6 Hz	3.4 @Frequency 1.00e+6 Hz	DIN 53 483, IEC-250
Dielectric Strength	>= 45.0 kV/mm	>= 1140 kV/in	Breakdown; DIN 53 481, IEC-243, VDE 0303 Part 1
Dielectric Loss Index	0.0040 @Frequency 1.00e+6 Hz	0.0040 @Frequency 1.00e+6 Hz	DIN 53 483, IEC-250

Descriptive Properties	Value	Comments
Color	transparent	
Creep Resistance	Grade CTI 600	DIN 53 480, IEC-112, VDE 0303 Part 1
Resistance to hot water, suds	not resistant	

## Contact Songhan Plastic Technology Co.,Ltd.

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