



Revision 20220619

SABIC® PMMA P20MH

POLYMETHYL METHACRYLATE

DESCRIPTION

SABIC® PMMA P20MH is a General purpose grade suitable for injection moulded housewares, automotive tail lights, optical lens, as well as for extrusion sheets, pipes, and rods.

TYPICAL PROPERTY VALUES

NYNSCAL PROPERTIS ")International and an antipartic formation of the strength of the				
ipedic Gravity1.99.0	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
AnimationJoinJoinValer Absorption (24hr)0.3%150 62Water Absorption (24hr)0.2 0.6%150 2944Water Absorption (24hr)0.2 0.6%150 2944#EdetAutical Repertures ¹¹ 50 20342150 20342#EdetAutical Repertures ¹¹ 50 20342150 20342#ardness100-150 20392150 20342#ardness100%150 20342150 20342#ardness120MPa150 20342150 20342#ardness120MPa150 178 1/A#ardnest Strength100MPa150 178 1/A#ardnest Strength120MPa150 178 1/A#ardnest Strength120MPa150 178 1/A#area Not	PHYSICAL PROPERTIES ⁽¹⁾			
Water Absorption (24hn)0.3%150 62Weld Shrinkage0.2 0.6%150 2944Weld Shrinkage0.2 0.6%150 2944Weld Shrinkage100%150 2039-2Hardness, Sockwell M100%150 2039-2Iessile Strength76MPa150 527Iessile Strength120MPa150 178/1AIeswal Strength3100MPa150 178/1AIesward Strength3100MPa150 179/1AIesward Strength9%150 178/1AIesward Strength9%150 13468Iesward Strength9%150 13468Iesward Strength149%150 14782Iesward Strength101%150 14782Iesward Strength101%150 1582Iest Stelling Temperature (850)109%150 3468Iest Stelling Temperature (850)109%150 3468Iest Stelling Temperature (850)161%150 3468Iest Stelling Temperature (850)1616%151 359Iest Stelling Temperature (850)1156%151 359Iest Stelling Temperature (850)1161%160 303Iest Stelling Temperature (Specific Gravity	1.19	g/cm³	ISO 1183
Number of the set	Melt Flow Rate, 230°C/3.8 kg	2.0	g/10 min	ISO 1133
ActANIC2 PROPERTIES ⁽¹⁾ Aradness, Rockwell M. 100 - 0. S0 2039-2 Aradness, Rockwell M. 100 - 0. S0 2039-2 Aradness, Rockwell M. 2002 - 2009 - 2009 Fersile Strength 2000 - 2009 Fersile Strength 2009 Fers	Water Absorption (24hr)	0.3	%	ISO 62
HardnessfardnessN0-S0 2039-2farenile Strength76MPaS0 527ising strength20%PaS0 527ising strength120MPaS0 78 / IAising strength300MPaS0 178 / IAising strength optical strengt	Mold Shrinkage	0.2 - 0.6	%	ISO 294-4
Aradical Standard100- 0102 030-2Tenders Rockwell M60NPa100100Biogation4Ma100100Biogation100MPa100 178/14Biogation100MPa100 178/14Biogation100MPa100 178/14Charpotched impedseringt@23°C140MPa100 178/14Charpotched impedseringt@23°C92100100 178/14Charpotched impedseringt@23°C92100100 178/14Charpotched impedseringt@23°C100100 178/14Charpotched impedseringt@23°C101100 178/14Charpotched impedseringt@23°C101100 178/14Charpotched impedseringt@23°C101100 178/14Charpotched impedseringt@23°C100 178/14100 178/14Charpotched impedseringt@23°C<	MECHANICAL PROPERTIES ⁽¹⁾			
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Singation4%150 527Siegarial120MPa150 178Fieural Modulus3100MPa150 178/1ACharpy notched impact strength @ 23°C1.4kl/m²150 179/1eAPTEAL PROPERTIES ''50 179/1eA50 179/1eAPTEAL PROPERTIES ''50 1346850 14782Parate0.5%150 14782Refractive Index1.49-150 489HERMAL PROPERTIES ''50 1478250 14782Prefection temperature under load DTUL (@1.8 MPa)101°C a150 489Index of time reprature (%50)101°C a150 1359.2Coeff. of linear thermal expansion7551/°C a150 1359.2Coeff. of linear thermal expansion11500.cm160 6093Index esistivity11610.cm16 60093Instance1150.cm16 60093Instaltion Resistance1150.cm16 60093Instaltion Resistanc	Hardness, Rockwell M	100	-	ISO 2039-2
JackMaxMaxMaxJackJackMaxSo 178/1AJackJackMaxSo 178/1AJary notched impact strength @ 23°C1.4Kl/m²So 179/1eADefetion temparts"So 178/1ASo 179/1eAJackSo 178/1ASo 179/1eADefetion temparts"JackSo 13468So 13468So 13468JackAgaSo 14782So 14782Area1.49-So 489Area101°CSo 75:182Jack Softening Temperature (MSO)109°CSo 306Jack Softening Temperature (MSO)TesSo 1369Coeff. of Linear ExpansionTesInfoSo 1335-2Coeff. Softening Temperature (MSO)So 11359-2So 1359-2Coeff. AgaSo 11359-2So 1359-2So 1359-2Coeff. Softening Temperature (MSO)So 11359-2So 1359-2Coeff.	Tensile Strength	76	MPa	ISO 527
Fileward ModulusNRAISO 178/1ACharpy notched impact strength @ 23°C1.4kl/m2ISO 179/1eACharpy notched impact strength @ 23°C92%SO 13468Total Light Transmittance92%SO 13468Ataze<0.5	Elongation	4	%	ISO 527
Charpy notched impact strength @ 23°C1.4k//m²ISO 179/ AACompricat PROPERTIES (1)92%%SO 13468Face Action Index0.5%SO 13468SO 14782Refractive Index1.49%%SO 489Comprise Action Index Index Index0.5%SO 57.82Coeffection temperature under load DTUL (@1.8 MPa)101°CSO 57.82Coeffection temperature (BSO)109°CSO 306Coeffection temperature (BSO)109°CSO 306Coeffection temperature (BSO)75.910°SO 1359:2Coeffection temperature (BSO)75.910°SO 1359:2Coeffection temperature (BSO)161ASO 10003Coeffection temperature (BSO)1160.0SO 1003Coeffection temperature (BSO)1160.0SO 1003Coeffection temperature (BSO)1150.0SO 1003Coeffection temperature (BSO)1150.0SO 1003Coeffection temperature (BSO)10010003SO 1003Coeffection temperature (BSO)1150.0SO 1003Coeffection temperature (BSO)100010000SO 1003Coeffection temperature (BSO)1000010000SO 10000Coeffection temperature (BSO)100000100000100000Coeffection temperature (BSO)1000000100000100000Coeffection temperature (BSO)1000000010000001000000Coeffection temperature (BSO)1000000	Flexural Strength	120	MPa	ISO 178
Construction of the second of the	Flexural Modulus	3100	MPa	ISO 178/1A
Total Light Transmittance92%%0 13468Haze<0.5%%0 14782Refractive Index1.49<0%0%0 489Cheffection temperature under load DTUL @1.8 MPa)101°C%0 150 75-182Deflection temperature (B50)109°C%0 306%0Coefficient of Linear Expansion%1%1%1%1Coefficient of	Charpy notched impact strength @ 23°C	1.4	kJ/m²	ISO 179/1eA
Haze No. 14782 Alaze <0.5	OPTICAL PROPERTIES (1)			
Refractive Index1.49- OISO 489FHERMAL PROPERTIES (************************************	Total Light Transmittance	92	%	ISO 13468
THERMAL PROPERTIES ⁽¹⁾ Define the mode of a DULL (@1.8 MPa)101°C150 75.18.2Joint of a Distribution of the mode o	Haze	<0.5	%	ISO 14782
Defection temperature under load DTUL (@1.8 MPa)101°CISO 75-18.2Vicat Softening Temperature109°CISO 306Vicat Softening Temperature (BSO)109°CISO 306Coeff. of linear thermal expansion751/°CISO 11359-2Coefficient of Linear Expansion>160ISO 60093Coefface Resistivity>16160.cmIEC 60093Andume Resistivity>16150.cmIEC 60167Coefficient Strength20K//mmIEC 60243-1Coefficient Strength0.cmIEC 60243-1	Refractive Index	1.49	-	ISO 489
Vicat Softening TemperatureInterference of the second	THERMAL PROPERTIES (1)			
Vicat Softening Temperature (B50)109°CISO 306Coeff. of linear thermal expansion7E-51/°CISO 11359-2Coefficient of Linear Expansion7E-51/°CISO 11359-2ELECTRICAL PROPERTIES91E16ΩIEC 60093Volume Resistivity>1E15Ω.cmIEC 60093Insulation Resistance>1E15ΩIEC 60167Dielectric Strength20KV/mmIEC 60243-1	Deflection temperature under load DTUL (@1.8 MPa)	101	°C	ISO 75-1&2
Coeff. of linear thermal expansion 7E-5 1/°C ISO 11359-2 ELECTRICAL PROPERTIES 51E16 Ω IEC 60093 /olume Resistivity >1E15 Ω.cm IEC 60167 Dielectric Strength 20 KV/mm IEC 60243-1	Vicat Softening Temperature			
Coefficient of Linear Expansion7E-51/°CISO 11359-2CECERICAL PROPERTIESSurface Resistivity>1E16ΩIEC 60093Jolume Resistivity>1E15Ω.cmIEC 60093Insulation Resistance>1E15ΩIEC 60167Dielectric Strength20KV/mmIEC 60243-1Dielectric ConstantKV/mmKV/mmKV/mm	Vicat Softening Temperature (B50)	109	°C	ISO 306
CLECTRICAL PROPERTIES >1E16 Ω IEC 60093 Joing Resistivity >1E15 Ω.cm IEC 60093 Insulation Resistance >1E15 Ω IEC 60167 Dielectric Strength 20 KV/mm IEC 60243-1	Coeff. of linear thermal expansion			
Surface Resistivity >1E16 Ω IEC 60093 /olume Resistivity >1E15 Ω.cm IEC 60093 nsulation Resistance >1E15 Ω IEC 60167 Dielectric Strength 20 KV/mm IEC 60243-1	Coefficient of Linear Expansion	7E-5	1/°C	ISO 11359-2
Volume Resistivity >1E15 Ω.cm IEC 60093 nsulation Resistance >1E15 Ω IEC 60167 Dielectric Strength 20 KV/mm IEC 60243-1	ELECTRICAL PROPERTIES			
nsulation Resistance>1E15ΩIEC 60167Dielectric Strength20kV/mmIEC 60243-1Dielectric Constant	Surface Resistivity	>1E16	Ω	IEC 60093
Dielectric Strength 20 kV/mm IEC 60243-1 Dielectric Constant	Volume Resistivity	>1E15	Ω.cm	IEC 60093
Dielectric Constant	Insulation Resistance	>1E15	Ω	IEC 60167
	Dielectric Strength	20	kV/mm	IEC 60243-1
a 1MHz 2 1 IEC 60250	Dielectric Constant			
	@ 1MHz	3.1	-	IEC 60250

(1) Typical values; not to be construed as specification limits





CHARACTERISTICS

SABIC® PMMA P20MH has the following:

• Excellent heat resistance • Excellent extrusion processability • High clarity • Excellent weather resistance.

STORAGE AND HANDLING

Handle in an area equipped with local or general ventilation. Provide facilities for washing eyes and body in case of emergency near the handling area. As preventive measure, make sure all equipment and devices are properly grounded. Store at a location away from heat and fire source and an area not exposed to sunlight. Store in an area where no water leakage occurs and the humidity is low.

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

DISCLAIMER

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