

CYCOLACTM RESIN MGABS01

REGION ASIA

DESCRIPTION

Injection molding ABS. High impact, high gloss, good flow.

TYPICAL PROPERTY VALUES

Revision 20190207

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	40	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	31	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	20	%	ASTM D 638
Tensile Modulus, 5 mm/min	2130	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	68	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2200	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	293	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	30	J	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	98	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	96	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	82	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.82E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.82E-05	1/°C	ASTM E 831
Relative Temp Index, Elec	60	°C	UL 746B
Relative Temp Index, Mech w/impact	60	°C	UL 746B
Relative Temp Index, Mech w/o impact	60	°C	UL 746B
PHYSICAL			
Specific Gravity	1.04	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.8	%	SABIC method
Melt Flow Rate, 230°C/3.8 kg	5.6	g/10 min	ASTM D 1238
Melt Viscosity, 240°C, 1000 sec-1	2250	Poise	ASTM D 3825
Melt Volume Rate, MVR at 220°C/10.0 kg	18	cm³/10 min	ISO 1133
ELECTRICAL			
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	3	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	3	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating	1.52	mm	UL 94
INJECTION MOLDING			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Temperature	80 – 95	°C	
Drying Time	2 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.1	%	
Melt Temperature	220 – 260	°C	
Nozzle Temperature	220 – 260	°C	
Front - Zone 3 Temperature	215 – 240	°C	
Middle - Zone 2 Temperature	205 – 225	°C	
Rear - Zone 1 Temperature	190 – 210	°C	
Mold Temperature	50 – 70	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	30 – 60	rpm	
Shot to Cylinder Size	50 – 70	%	
Vent Depth	0.038 – 0.051	mm	

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