

## Cycolac\* Resin EPBM

Americas: LIMITED USE

Injection molding, especially for electroplating/painting applications requiring excellent flow and aesthetics.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
	Value	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	47	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	25	%	ASTM D 638
Tensile Modulus, 5 mm/min	2550	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	88	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2620	MPa	ASTM D 790
Hardness, Rockwell R	113	-	ASTM D 785
<b>IMPACT</b>			
	Value	Unit	Standard
Izod Impact, notched, 23°C	320	J/m	ASTM D 256
Izod Impact, notched, -40°C	53	J/m	ASTM D 256
<b>THERMAL</b>			
	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	96	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	83	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	98	°C	ASTM D 648
CTE, -30°C to 30°C, flow	6.48E-05	1/°C	ASTM D 696
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
<b>PHYSICAL</b>			
	Value	Unit	Standard
Specific Gravity	1.05	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.4 - 0.6	%	SABIC Method
Melt Flow Rate, 220°C/10.0 kgf	18	g/10 min	ASTM D 1238
Melt Flow Rate, 230°C/3.8 kgf	6	g/10 min	ASTM D 1238
<b>ELECTRICAL</b>			
	Value	Unit	Standard
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}	0	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
<b>FLAME CHARACTERISTICS</b>			
	Value	Unit	Standard
UL Recognized, 94HB Flame Class Rating (3)	1.49	mm	UL 94

Source GMD, last updated:12/29/1999

### Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	90 - 95	°C
Drying Time	2 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.01	%

Melt Temperature	230 - 275	°C
Nozzle Temperature	230 - 275	°C
Front - Zone 3 Temperature	230 - 255	°C
Middle - Zone 2 Temperature	225 - 240	°C
Rear - Zone 1 Temperature	200 - 210	°C
Mold Temperature	40 - 80	°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

Source GMD, last updated:12/29/1999

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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