

CYCOLAC* MG37EP Resin

Acrylonitrile Butadiene Styrene

SABIC Innovative Plastics Asia Pacific

Product Description

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

General

Features	• Good Flow	• Paintable	• Platable
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.05	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			
230°C/3.8 kg	4.4	g/10 min	ASTM D1238
220°C/10.0 kg	16	g/10 min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.60	%	ASTM D955

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	2380	MPa	ASTM D638
Tensile Strength ³			ASTM D638
Yield	42.4	MPa	
Break	33.8	MPa	
Tensile Elongation ³			ASTM D638
Yield	2.2	%	
Break	30	%	
Flexural Modulus ⁴ (50.0 mm Span)	2450	MPa	ASTM D790
Flexural Strength ⁴ (Yield, 50.0 mm Span)	73.1	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	347	J/m	ASTM D256
Instrumented Dart Impact			ASTM D3763
23°C, Total Energy	34.3	J	

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 3.20 mm	98.9	°C	
1.8 MPa, Unannealed, 3.20 mm	85.0	°C	
Vicat Softening Temperature	101	°C	ASTM D1525 ⁵
CLTE			ASTM E831
Flow: -40 to 40°C	0.000077	cm/cm/°C	
Transverse: -40 to 40°C	0.000074	cm/cm/°C	

Electrical	Nominal Value	Unit	Test Method
Arc Resistance (PLC) ⁶	PLC 6		ASTM D495

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (1.52 mm)	HB		UL 94

UL 746	Nominal Value	Unit	Test Method
RTI Str	60.0	°C	UL 746
RTI Imp	60.0	°C	UL 746
RTI Elec	60.0	°C	UL 746
Comparative Tracking Index (CTI) (PLC)	PLC 1		UL 746
High Voltage Arc Tracking Rate (HVTR) (PLC)			UL 746
--	PLC 3		
Hot-wire Ignition (HWI) (PLC)	PLC 3		UL 746
High Amp Arc Ignition (HAI) (PLC)	PLC 3		UL 746

Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (240°C, 1000 sec ⁻¹)	255	Pa·s	ASTM D3835

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Injection	Nominal Value	Unit
Drying Temperature	82.2 to 93.3	°C
Drying Time	2.0 to 4.0	hr
Drying Time, Maximum	8.0	hr
Suggested Max Moisture	0.020	%
Suggested Shot Size	50 to 70	%
Rear Temperature	216 to 229	°C
Middle Temperature	232 to 243	°C
Front Temperature	249 to 268	°C
Nozzle Temperature	254 to 279	°C
Processing (Melt) Temp	254 to 279	°C
Mold Temperature	37.8 to 82.2	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	30 to 60	rpm
Vent Depth	0.038 to 0.051	mm