SABIC Innovative Plastics™

Cycolac* Resin GPM5600

Americas: LIMITED USE

General purpose. Excellent flow/impact.

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	37	MPa	ASTM D 638
Tensile Modulus, 5 mm/min	2060	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	2130	MPa	ASTM D 790
Hardness, Rockwell R	105	-	ASTM D 785
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	347	J/m	ASTM D 256
THERMAL	Value	Unit	Standard
HDT, 1.82 MPa, 3.2mm, unannealed	80	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	95	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	83	°C	ASTM D 648
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	Value	Unit	Standard
Specific Gravity	1.03	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.8	%	SABIC Method
Melt Flow Rate, 230°C/3.8 kgf	8	g/10 min	ASTM D 1238
Melt Viscosity, 260°C, 1000 sec-1	1450	poise	ASTM D 3825
ELECTRICAL	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}	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	Value	Unit	Standard
UL Recognized, 94HB Flame Class Rating (3)	1.47	mm	UL 94
CSA (See File for complete listing)	LS88480	File No.	CSA LISTED
Oxygen Index (LOI)	19	%	ASTM D 2863
UV-light, water exposure/immersion	F2	-	UL 746C

Source GMD, last updated:12/29/1999

Processing

Parameter		
Injection Molding	Value	Unit
Drying Temperature	80 - 95	°C
Drying Time	2 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.01	%

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

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.