CYCOLAC™ MG38U resin

Acrylonitrile Butadiene Styrene

SABIC Innovative Plastics

Message:

High impact ABS. UL 746C f1 listed. Toughness/rigidity. Good fatigue resistance.

General Information			
UL YellowCard	E121562-100095483		
Features	Fatigue Resistant Good Toughness High Impact Resistance High Rigidity		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.05	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	15	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/5.0 kg)	5.00	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.80	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	1.0	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	2390	MPa	ASTM D638
--	2420	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	43.8	MPa	ASTM D638
Yield	41.0	MPa	ISO 527-2/5
Break [3]	36.2	MPa	ASTM D638
Break	33.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield [4]	2.9	%	ASTM D638
Yield	2.5	%	ISO 527-2/5
Break [5]	98	%	ASTM D638
Break	30	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span [6]	2410	MPa	ASTM D790
-- [7]	2310	MPa	ISO 178

Flexural Stress			
--	70.0	MPa	ISO 178
Yield, 50.0 mm Span [8]	76.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
23°C	370	J/m	ASTM D256
23°C [9]	27	kJ/m²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	32.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	97.0	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	82.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span [10]	80.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	98.0	°C	ASTM D1525, ISO 306/B50 10 [11]
--	99.0	°C	ISO 306/B120
CLTE			ASTM E831, ISO 11359-2
Flow : -40 to 40°C	8.8E-5	cm/cm/°C	
Transverse : -40 to 40°C	8.6E-5	cm/cm/°C	
Flammability	**Nominal Value**		**Test Method**
Flame Rating (1.50 mm)	HB		UL 94
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	0.10	%	
Suggested Shot Size	50 to 70	%	
Rear Temperature	188 to 210	°C	
Middle Temperature	204 to 227	°C	
Front Temperature	216 to 238	°C	
Nozzle Temperature	218 to 260	°C	
Processing (Melt) Temp	218 to 260	°C	
Mold Temperature	48.9 to 71.1	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	30 to 60	rpm	
Vent Depth	0.038 to 0.051	mm	
NOTE			
1.	5.0 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	Type I, 5.0 mm/min		

5.	Type I, 5.0 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*4
10.	80*10*4 mm
11.	Rate B (120°C/h), Loading 2 (50 N)

Recommended distributors for this material

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