

CYCOLAC™ EX39 resin

Acrylonitrile Butadiene Styrene

SABIC Innovative Plastics

Message:

Highest impact extrusion ABS for sheet and blow molding applications.

General Information			
UL YellowCard	E121562-220681		
Features	Impact resistance, high		
Uses	Blow molding applications		
	Sheet		
Processing Method	Extrusion blow molding		
	Sheet extrusion molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm³	ASTM D792
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	4.00	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.70 - 0.90	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	1680	MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	35.9	MPa	ASTM D638
Fracture	29.0	MPa	ASTM D638
Tensile Elongation ³			ASTM D638
Yield	3.5	%	ASTM D638
Fracture	110	%	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	1900	MPa	ASTM D790
Flexural Strength ⁵ (Yield, 50.0 mm Span)	57.9	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C	320	J/m	ASTM D256
23°C	460	J/m	ASTM D256
Instrumented Dart Impact (23°C, Total Energy)	39.5	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.20mm	91.7	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	77.8	°C	ASTM D648
Vicat Softening Temperature	95.0	°C	ASTM D1525 ⁶

Linear thermal expansion coefficient			ASTM E831
Flow: -40 to 40°C	1.0E-4	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	1.2E-4	cm/cm/°C	ASTM E831
RTI Elec	60.0	°C	UL 746
RTI Imp	60.0	°C	UL 746
RTI	60.0	°C	UL 746
Flammability	Nominal Value		Test Method
Flame Rating (1.52 mm)	HB		UL 94
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (240°C, 100 sec ⁻¹)	1520	Pa·s	ASTM D3835
Extrusion instructions			

Extrusion Blow Molding Parameters:
 Adapter - Zone 5 Temperature: 193 - 221 C
 Barrel - Zone 1 Temperature: 188 - 221 C
 Barrel - Zone 2 Temperature: 188 - 221 C
 Barrel - Zone 3 Temperature: 188 - 221 C
 Barrel - Zone 4 Temperature: 188 - 221 C
 Die Temperature: 193.33333333 - 221 C
 Drying Temperature: 82 - 88 C
 Drying Time: 5 - 4 hrs
 Drying Time (Cumulative): 24 hrs
 Extruder Feed Zone Temperature: 60 - 79 C
 Head - Zone 6 - Top Temperature: 193 - 221 C
 Head - Zone 7 - Bottom Temperature: 193 - 221 C
 Maximum Moisture Content: .02 - .04 %
 Melt Temperature (Parison): 210 - 227 C
 Minimum Moisture Content: .04 %
 Mold Temperature: 38 - 88 C
 Screw Speed: 20 - 60 rpm
 Sheet Extrusion Parameters:
 Adapter Temperature: 199 - 227 C
 Barrel - Zone 1 Temperature: 193 - 210 C
 Barrel - Zone 2 Temperature: 199 - 221 C
 Barrel - Zone 3 Temperature: 204 - 232 C
 Barrel - Zone 4 Temperature: 210 - 235 C
 Die Temperature: 210 - 241 C
 Drying Temperature: 88 - 93 C
 Drying Time: 2 - 4 hrs
 Maximum Moisture Content: .001 %
 Melt Temperature: 210 - 241 C

NOTE	
1.	5.0 mm/min
2.	Type 1, 5.0 mm/min
3.	Type 1, 5.0 mm/min
4.	1.3 mm/min
5.	1.3 mm/min
6.	标准 B (120°C/h), 载荷2 (50N)

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