

CYCOLAC™ EXABS01 resin

Acrylonitrile Butadiene Styrene

SABIC Innovative Plastics

Message:

Sheet extrusion ABS with medium impact.

General Information			
UL YellowCard	E121562-220683	E121562-220684	
Features	Medium impact resistance		
Uses	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)	0.60 - 0.80	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	2030	MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	39.3	MPa	ASTM D638
Fracture	29.0	MPa	ASTM D638
Tensile Elongation ³			ASTM D638
Yield	3.1	%	ASTM D638
Fracture	32	%	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	2100	MPa	ASTM D790
Flexural Strength ⁵ (Yield, 50.0 mm Span)	63.4	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C	280	J/m	ASTM D256
23°C	410	J/m	ASTM D256
Instrumented Dart Impact (23°C, Total Energy)	33.3	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.20mm	93.3	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	80.6	°C	ASTM D648
Vicat Softening Temperature	107	°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	1.0E-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
Electrical	Nominal Value		Test Method
Arc Resistance ⁷	PLC 5		ASTM D495
Comparative Tracking Index (CTI)	PLC 0		UL 746
High Amp Arc Ignition (HAI)	PLC 4		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 1		UL 746
Hot-wire Ignition (HWI)	PLC 4		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)	1400	Pa · s	ASTM D3835
Extrusion instructions			

Extrusion Blow Molding Parameters:

Adapter - Zone 5 Temperature: 210 - 232 °C

Barrel - Zone 1 Temperature: 204 - 227 °C

Barrel - Zone 2 Temperature: 204 - 227 °C

Barrel - Zone 3 Temperature: 204 - 227 °C

Barrel - Zone 4 Temperature: 204 - 227 °C

Die Temperature: 216 - 235 °C

Drying Temperature: 82 - 88 °C

Drying Time: 4 - 5 hrs

Drying Time (Cumulative): 24 hrs

Extruder Feed Zone Temperature: 60 - 77 °C

Head - Zone 6 - Top Temperature: 216 - 232 °C

Head - Zone 7 - Bottom Temperature: 216 - 232 °C

Maximum Moisture Content: 0.02 %

Melt Temperature (Parison): 216 - 232 °C

Mold Temperature: 38 - 82 °C

Screw Speed: 20 - 60 rpm

Sheet Extrusion Parameters:

Adapter Temperature: 204 - 249 °C

Barrel - Zone 1 Temperature: 171 - 199 °C

Barrel - Zone 2 Temperature: 182 - 221 °C

Barrel - Zone 3 Temperature: 188 - 227 °C

Barrel - Zone 4 Temperature: 199 - 238 °C

Die Temperature: 204 - 249 °C

Drying Temperature: 82 - 93 °C

Drying Time: 4 hrs

Maximum Moisture Content: 0.02 %

Melt Temperature: 216 - 260 °C

Roll Stack Temp - Bottom: 99 - 104 °C

Roll Stack Temp - Middle: 93 - 104 °C

Roll Stack Temp - Top: 88 - 93 °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)
7.	Tungsten electrode

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