

ULTEM™ 3452 resin

Polyether Imide
SABIC Innovative Plastics

Message:
45% Glass fiber and mineral filled, enhanced flow Polyetherimide (Tg 217C) with enhanced dimensional stability. ECO Conforming, UL94 V0 and 5VA listing in recognized colors.

General Information	
UL YellowCard	E121562-221107
Features	ECO Compliant
	Good Dimensional Stability
	Good Flow
Agency Ratings	EU Eco
Processing Method	Injection Molding
Multi-Point Data	Coefficient of Thermal Expansion vs. Temperature (ASTM E831)
	Flexural DMA (ASTM D4065)
	Pressure-Volume-Temperature (PVT - Zoller Method)
	Tensile Creep (ASTM D2990)
	Tensile Fatigue
	Tensile Stress vs. Strain (ASTM D638)
	Thermal Conductivity vs. Temperature (ASTM E1530)
	Viscosity vs. Shear Rate (ASTM D3835)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.66	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	4.6	g/10 min	ASTM D1238
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.15 to 0.25	%	
Across Flow : 3.20 mm	0.30 to 0.50	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹ (Break)	131	MPa	ASTM D638
Tensile Elongation ² (Break)	1.4	%	ASTM D638
Flexural Modulus ³ (100 mm Span)	12400	MPa	ASTM D790
Flexural Strength ⁴ (Break, 100 mm Span)	179	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	59	J/m	ASTM D256
Reverse Notch Izod Impact (3.20 mm)	220	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 6.40 mm)	212	°C	ASTM D648

RTI Elec	180	°C	UL 746
RTI Imp	180	°C	UL 746
RTI Str	180	°C	UL 746
Electrical	Nominal Value		Test Method
Arc Resistance ⁵	PLC 5		ASTM D495
Comparative Tracking Index (CTI)	PLC 4		UL 746
High Amp Arc Ignition (HAI)	PLC 4		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 4		UL 746
Hot-wire Ignition (HWI)	PLC 1		UL 746
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
0.787 mm	V-0		
3.00 mm	5VA		
Injection	Nominal Value	Unit	
Drying Temperature	149	°C	
Drying Time	4.0 to 6.0	hr	
Drying Time, Maximum	24	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 60	%	
Rear Temperature	332 to 399	°C	
Middle Temperature	338 to 399	°C	
Front Temperature	343 to 399	°C	
Nozzle Temperature	343 to 399	°C	
Processing (Melt) Temp	349 to 399	°C	
Mold Temperature	135 to 163	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	40 to 70	rpm	
Vent Depth	0.025 to 0.076	mm	
NOTE			
1.	Type I, 5.0 mm/min		
2.	Type I, 5.0 mm/min		
3.	2.6 mm/min		
4.	2.6 mm/min		
5.	Tungsten Electrode		

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