

ULTEM™ CRS5011 resin

Polyether Imide
SABIC Innovative Plastics

Message:
Transparent, Enhanced flow Polyetherimide copolymer (Tg 225C) with enhanced chemical resistance to strong acids, bases, aromatics, and ketones. ECO conforming, UL94 V0 listing.

General Information	
UL YellowCard	E121562-221115
Features	Acid Resistant
	Base Resistant
	Copolymer
	ECO Compliant
	Good Chemical Resistance
	Good Flow
Agency Ratings	EU Eco
Appearance	Clear/Transparent
Processing Method	Injection Molding
Multi-Point Data	Elastic Modulus vs Temperature (ASTM D4065)
	Flexural DMA (ASTM D4065)
	Instrumented Impact (Energy) (ASTM D3763)
	Instrumented Impact (Load) (ASTM D3763)
	Specific Heat vs. Temperature (ASTM D3417)
	Tensile Fatigue
	Tensile Stress vs. Strain (ASTM D638)
Thermal Conductivity vs. Temperature (ASTM E1530)	

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.28	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	11	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.70	%	Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	2900	MPa	ASTM D638
Tensile Strength ² (Yield)	100	MPa	ASTM D638
Tensile Elongation ³ (Break)	60	%	ASTM D638
Flexural Modulus ⁴ (100 mm Span)	3100	MPa	ASTM D790
Flexural Strength ⁵ (Yield, 100 mm Span)	138	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)	2100	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 6.40 mm)	204	°C	ASTM D648
RTI Elec	160	°C	UL 746
RTI Imp	155	°C	UL 746
RTI Str	160	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength (3.20 mm, in Oil)	18	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
50 Hz	3.20		
60 Hz	3.20		
Dissipation Factor			ASTM D150
50 Hz	2.1E-3		
60 Hz	2.1E-3		
Arc Resistance ⁶	PLC 5		ASTM D495
Comparative Tracking Index (CTI)	PLC 4		UL 746
High Amp Arc Ignition (HAI)	PLC 0		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 2		UL 746
Hot-wire Ignition (HWI)	PLC 0		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.47 mm)	V-0		UL 94
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	343 to 366	°C	
Middle Temperature	354 to 377	°C	
Front Temperature	366 to 388	°C	
Nozzle Temperature	360 to 382	°C	
Processing (Melt) Temp	366 to 388	°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.	5.0 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	2.6 mm/min		

5.	2.6 mm/min
6.	Tungsten Electrode

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