



ULTEM™ Resin CRS5011

Americas: COMMERCIAL

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

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	1010	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	60	%	ASTM D 638
Tensile Modulus, 5 mm/min	29500	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	1400	kgf/cm ²	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	31600	kgf/cm ²	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Izod Impact, Reverse Notched, 3.2 mm	212	cm-kgf/cm	ASTM D 256
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	204	°C	ASTM D 648
Relative Temp Index, Elec	160	°C	UL 746B
Relative Temp Index, Mech w/impact	155	°C	UL 746B
Relative Temp Index, Mech w/o impact	160	°C	UL 746B
PHYSICAL			
Specific Gravity	1.28	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.4 - 0.7	%	SABIC Method
Melt Flow Rate, 337°C/6.6 kgf	11	g/10 min	ASTM D 1238
ELECTRICAL			
Dielectric Strength, in oil, 3.2 mm	17.9	kV/mm	ASTM D 149
Relative Permittivity, 50/60 Hz	3.2	-	ASTM D 150
Dissipation Factor, 50/60 Hz	0.0021	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	0	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	2	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
ELECTRICAL			
Comparative Tracking Index (UL) {PLC}	4	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	1.47	mm	UL 94



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	150	°C
Drying Time	4 - 6	hrs
Drying Time (Cumulative)	24	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	365 - 390	°C
Nozzle Temperature	360 - 380	°C
Front - Zone 3 Temperature	365 - 390	°C
Middle - Zone 2 Temperature	355 - 375	°C
Rear - Zone 1 Temperature	345 - 365	°C
Mold Temperature	135 - 165	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	40 - 70	rpm
Shot to Cylinder Size	40 - 60	%
Vent Depth	0.025 - 0.076	mm