



ULTEM™ Resin 6202
Americas: COMMERCIAL

12% Silica filled, standard flow Polyetherimide Copolymer (Tg 235C). ECO Conforming, UL94 VO Listing.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	980	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	940	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	10	%	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	1470	kgf/cm ²	ASTM D 790
Flexural Stress, brk, 2.6 mm/min, 100 mm span	1470	kgf/cm ²	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	44900	kgf/cm ²	ASTM D 790
Hardness, Rockwell M	110	-	ASTM D 785
Taber Abrasion, CS-17, 1 kg	11	mg/1000cy	ASTM D 1044
IMPACT			
Izod Impact, unnotched, 23°C	38	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
THERMAL			
Vicat Softening Temp, Rate B/50	237	°C	ASTM D 1525
HDT, 1.82 MPa, 6.4 mm, unannealed	214	°C	ASTM D 648
CTE, -20°C to 150°C, flow	4.5E-05	1/°C	ASTM E 831
CTE, -20°C to 150°C, xflow	4.86E-05	1/°C	ASTM E 831
Relative Temp Index, Elec	105	°C	UL 746B
Relative Temp Index, Mech w/impact	105	°C	UL 746B
Relative Temp Index, Mech w/o impact	105	°C	UL 746B
PHYSICAL			
Specific Gravity	1.42	-	ASTM D 792
Water Absorption, 24 hours	0.22	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 367°C/6.6 kgf	14.7	g/10 min	ASTM D 1238





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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
ELECTRICAL			
Volume Resistivity	1.E+17	Ohm-cm	ASTM D 257
Dielectric Strength, in oil, 1.6 mm	20.8	kV/mm	ASTM D 149
Relative Permittivity, 1 kHz	3.1	-	ASTM D 150
Dissipation Factor, 1 kHz	0.001	-	ASTM D 150
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	1.47	mm	UL 94
Oxygen Index (LOI)	48	%	ASTM D 2863





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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	380 - 405	°C
Nozzle Temperature	375 - 400	°C
Front - Zone 3 Temperature	380 - 405	°C
Middle - Zone 2 Temperature	370 - 395	°C
Rear - Zone 1 Temperature	360 - 380	°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

