

# ULTEM™ RESIN 6202

REGION AMERICAS

## DESCRIPTION

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

INDUSTRY	SUB INDUSTRY
Automotive	Aerospace

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	96	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	92	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	10	%	ASTM D638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	144	MPa	ASTM D790
Flexural Stress, brk, 2.6 mm/min, 100 mm span	144	MPa	ASTM D790
Flexural Modulus, 2.6 mm/min, 100 mm span	4410	MPa	ASTM D790
Hardness, Rockwell M	110	-	ASTM D785
Taber Abrasion, CS-17, 1 kg	11	mg/1000cy	ASTM D1044
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	373	J/m	ASTM D4812
Izod Impact, notched, 23°C	42	J/m	ASTM D256
<b>THERMAL</b>			
Vicat Softening Temp, Rate B/50	237	°C	ASTM D1525
HDT, 1.82 MPa, 6.4 mm, unannealed	214	°C	ASTM D648
CTE, -20°C to 150°C, flow	4.5E-05	1/°C	ASTM E831
CTE, -20°C to 150°C, xflow	4.86E-05	1/°C	ASTM E831
Relative Temp Index, Elec <sup>(1)</sup>	105	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(1)</sup>	105	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(1)</sup>	105	°C	UL 746B
<b>PHYSICAL</b>			
Specific Gravity	1.42	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.22	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 367°C/6.6 kgf	14.7	g/10 min	ASTM D1238
<b>ELECTRICAL</b>			
Volume Resistivity	1.E+17	Ω.cm	ASTM D257
Dielectric Strength, in oil, 1.6 mm	20.8	kV/mm	ASTM D149
Relative Permittivity, 1 kHz	3.1	-	ASTM D150
Dissipation Factor, 1 kHz	0.001	-	ASTM D150
<b>FLAME CHARACTERISTICS <sup>(1)</sup></b>			
UL Yellow Card Link	<a href="#">E121562-221112</a>	-	-

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
Oxygen Index (LOI)	48	%	ASTM D2863
<b>INJECTION MOLDING</b>			
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	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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