

ULTEM™ RESIN 6202

REGION AMERICAS

DESCRIPTION

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

INDUSTRY	SUB INDUSTRY
Automotive	Aerospace

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
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
IMPACT			
Izod Impact, unnotched, 23°C	373	J/m	ASTM D4812
Izod Impact, notched, 23°C	42	J/m	ASTM D256
THERMAL			
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 ⁽¹⁾	105	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽¹⁾	105	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽¹⁾	105	°C	UL 746B
PHYSICAL			
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
ELECTRICAL			
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
FLAME CHARACTERISTICS ⁽¹⁾			
UL Yellow Card Link	E121562-221112	-	-

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CHEMISTRY THAT MATTERS™

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

(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.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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