ULTEM™ AR9200 resin

Polyether Imide

SABIC Innovative Plastics

Message:

20% Glass fiber filled, standard flow Polyetherimide (Tg 217C). Meets FAR 25.853 and OSU 65/65 with low toxicity, smoke, and flame evolution. ECO Conforming.

General Information	
Filler / Reinforcement	Glass Fiber,20% Filler by Weight
Features	ECO Compliant Low Smoke Emission Low Toxicity
Agency Ratings	EU Eco FAR 25.853 OSU 65/65
Processing Method	Injection Molding
Multi-Point Data	Coefficient of Thermal Expansion vs. Temperature (ASTM E831) Elastic Modulus vs Temperature (ASTM D4065) Flexural DMA (ASTM D4065) Tensile Fatigue Tensile Stress vs. Strain (ASTM D638) Thermal Conductivity vs. Temperature (ASTM E1530)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.40	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	5.7	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.30 to 0.50	%	Internal Method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [1]	6960	MPa	ASTM D638
Tensile Strength [2] (Break)	152	MPa	ASTM D638
Tensile Elongation [3] (Break)	3.0	%	ASTM D638
Flexural Modulus [4] (100 mm Span)	7240	MPa	ASTM D790
Flexural Strength [5] (Yield, 100 mm Span)	207	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	100	J/m	ASTM D256
Reverse Notch Izod Impact (3.20 mm)	530	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed, 6.40 mm)	211	°C	ASTM D648

Flammability	Nominal Value	Unit	Test Method
FAA Flammability [6]	NATURAL		FAR 25.853
NBS Smoke Density			ASTM E662
Flaming, Dmax	5.00		
Flaming, Ds, 1.5 min	0.00		
Flaming, Ds, 4 min	5.00		
OSU Peak Heat Release Rate [7]	40.0	kW/m^2	FAR 25.853
OSU Total Heat Release [8]	5.00	$kW \cdot min/m^2$	FAR 25.853
Vertical Burn Test			FAR 25.853
Test a (60 s), passes at	0.0	hr	
Test b (12 s), passes at	0.0	hr	

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.	Method A/B
7.	5 minute test
8.	2 minute test

Recommended distributors for this material

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