ULTEM™ RESIN AR9300

REGION ASIA

DESCRIPTION

30% 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.

INDUSTRY	SUB INDUSTRY
Industrial	Defense, Additive Manufacturing, Additive Materials
Mass Transportation	Rail, Aircraft Interiors

TYPICAL PROPERTY VALUES

Revision 20190305

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	155	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Modulus, 5 mm/min	8960	MPa	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	241	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	9650	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	117	J/m	ASTM D 256
Izod Impact, Reverse Notched, 3.2 mm	534	J/m	ASTM D 256
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	212	°C	ASTM D 648
PHYSICAL			
Specific Gravity	1.49	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.2 – 0.4	%	SABIC method
Melt Flow Rate, 337°C/6.6 kgf	4.2	g/10 min	ASTM D 1238
FLAME CHARACTERISTICS			
FAA Flammability, FAR 25.853 A/B	NATURAL	-	FAR 25.853
OSU total heat release (2 minute test)	5	kW-min/m²	FAR 25.853
OSU peak heat release rate (5 minute test)	40	kW/m²	FAR 25.853
Vertical Burn a (60s) passes at	0	sec	FAR 25.853
Vertical Burn b (12s) passes at	0	sec	FAR 25.853
NBS Smoke Density, Flaming, Dmax	5	-	ASTM E 662
NBS Smoke Density, Flaming, Ds 1.5 min	0	-	ASTM E 662
NBS Smoke Density, Flaming, Ds 4 min	5	-	ASTM E 662
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	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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	

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