ULTEM™ Resin AR9110

REGION AMERICAS

DESCRIPTION

10% Glass fiber filled, enhanced flow Polyetherimide (Tg 217C). Meets FAR 25.853 and OSU 65/65 with low toxicity, smoke, and flame evolution. ECO Conforming.

INDUSTRY	SUB INDUSTRY
Automotive	Aerospace
Mass Transportation	Rail

TYPICAL PROPERTY VALUES

Revision 20260205

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	106	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	102	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	8	%	ASTM D638
Tensile Modulus, 5 mm/min	4480	MPa	ASTM D638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	188	MPa	ASTM D790
Flexural Modulus, 2.6 mm/min, 100 mm span	4820	MPa	ASTM D790
IMPACT			
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Izod Impact, Reverse Notched, 3.2 mm	395	J/m	ASTM D256
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	207	°C	ASTM D648
PHYSICAL			
Specific Gravity	1.4	-	ASTM D792
Melt Flow Rate, 337°C/6.6 kgf	12.5	g/10 min	ASTM D1238
FLAME CHARACTERISTICS			
FAA Flammability, FAR 25.853 A/B	NATURAL	-	FAR 25.853
OSU total heat release (2 minute test)	6	kW-min/m²	FAR 25.853
OSU peak heat release rate (5 minute test)	36	kW/m²	FAR 25.853
NBS Smoke Density, Flaming, Dmax	5	-	ASTM E662
NBS Smoke Density, Flaming, Ds 1.5 min	0	-	ASTM E662
NBS Smoke Density, Flaming, Ds 4 min	5	-	ASTM E662
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	
Nozzle Temperature	360 – 380	°C	
Front - Zone 3 Temperature	365 – 390	°C	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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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