



ULTEM™ Resin AR9100
Americas: COMMERCIAL

10% 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.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	1120	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	1220	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	8	%	ASTM D 638
Tensile Modulus, 5 mm/min	44200	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	1960	kgf/cm ²	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	51300	kgf/cm ²	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	7	cm-kgf/cm	ASTM D 256
Izod Impact, Reverse Notched, 3.2 mm	49	cm-kgf/cm	ASTM D 256
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	207	°C	ASTM D 648
PHYSICAL			
Specific Gravity	1.32	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.6	%	SABIC Method
Melt Flow Rate, 337°C/6.6 kgf	6.9	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/m ²	FAR 25.853
OSU peak heat release rate (5 minute test)	40	kW/m ²	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





ULTEM™ Resin AR9100
Americas: COMMERCIAL

PROCESSING PARAMETERS	TYPICAL VALUE	Unit
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
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

