

ULTEM™ RESIN AR9300

REGION EUROPE

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
Automotive	Aerospace
Mass Transportation	Rail

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break, 5 mm/min	165	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	9500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	225	MPa	ISO 178
Flexural Modulus, 2 mm/min	8500	MPa	ISO 178
Ball Indentation Hardness, H358/30	160	MPa	ISO 2039-1
IMPACT			
Izod Impact, unnotched 80*10*4 +23°C	35	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	35	kJ/m ²	ISO 180/1U
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	40	kJ/m ²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	40	kJ/m ²	ISO 179/1eU
THERMAL			
Thermal Conductivity	0.29	W/m·°C	ISO 8302
CTE, 23°C to 150°C, flow	1.7E-05	1/°C	ISO 11359-2
CTE, 23°C to 150°C, xflow	4.2E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate A/50	220	°C	ISO 306
Vicat Softening Temp, Rate B/50	210	°C	ISO 306
Vicat Softening Temp, Rate B/120	215	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	212	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	208	°C	ISO 75/Ae
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow	0.2 – 0.4	%	SABIC method
Density	1.49	g/cm ³	ISO 1183
Melt Volume Rate, MVR at 360°C/5.0 kg	6	cm ³ /10 min	ISO 1133
FLAME CHARACTERISTICS			
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
INJECTION MOLDING			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	350 – 400	°C	
Nozzle Temperature	350 – 410	°C	
Front - Zone 3 Temperature	350 – 410	°C	
Middle - Zone 2 Temperature	350 – 400	°C	
Rear - Zone 1 Temperature	350 – 370	°C	
Hopper Temperature	80 – 120	°C	
Mold Temperature	135 – 140	°C	

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