

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.

TYPICAL PROPERTY VALUES

Revision 20170913

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
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 (2) (5)	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			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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			
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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