ULTEM™ RESIN 1040P

REGION AMERICAS

DESCRIPTION

Enhanced Flow Polyetherimide in 350 micron powder.

TYPICAL PROPERTY VALUES

Revision 20191009

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	97	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	97	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	10	%	ASTM D 638
Tensile Modulus, 5 mm/min	3440	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	3447	MPa	ASTM D 790
Flexural Stress, yld, 2.6 mm/min, 100 mm span	159	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	3400	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	90	MPa	ISO 527
Tensile Stress, break, 5 mm/min	90	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5	%	ISO 527
Tensile Strain, break, 5 mm/min	10	%	ISO 527
Tensile Modulus, 1 mm/min	3000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	150	MPa	ISO 178
Flexural Modulus, 2 mm/min	3000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	470	J/m	ASTM D 4812
Izod Impact, notched, 23°C	21	J/m	ASTM D 256
Izod Impact, notched, -30°C	20	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	30	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	NB	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	NB	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	5	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	205	°C	ASTM D 1525
HDT, 1.82 MPa, 6.4 mm, unannealed	196	°C	ASTM D 648
CTE, -40°C to 40°C, flow	5.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	5.5E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.5E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	211	°C	ISO 306
Vicat Softening Temp, Rate B/120	212	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	190	°C	ISO 75/Af
PHYSICAL			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Specific Gravity	1.27	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 295°C/6.6 kgf	6.6	g/10 min	ASTM D 1238
Density	1.27	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	1.25	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.7	%	ISO 62
Melt Volume Rate, MVR at 220°C/5.0 kg	10	cm³/10 min	ISO 1133

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