

## Ultem\* Resin HU2400

Americas: COMMERCIAL

40% Glass fiber filled, standard flow Polyetherimide (Tg 217C). For medical devices and pharmaceutical applications. Healthcare management of change, biocompatible (ISO 10993 or USP Class VI), food contact compliant.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	179	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	179	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.5	%	ASTM D 638
Tensile Modulus, 5 mm/min	11720	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	241	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	11720	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	180	MPa	ISO 527
Tensile Stress, break, 5 mm/min	180	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2	%	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	11500	MPa	ISO 527
Flexural Stress, break, 2 mm/min	240	MPa	ISO 178
Flexural Modulus, 2 mm/min	10000	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	112	J/m	ASTM D 256
Izod Impact, notched, -30°C	-	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	28	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	35	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	35	kJ/m <sup>2</sup>	ISO 180/1U
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	40	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	40	kJ/m <sup>2</sup>	ISO 179/1eU
THERMAL	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	234	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	212	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.44E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.44E-05	1/°C	ASTM E 831
CTE, 23°C to 150°C, flow	1.5E-05	1/°C	ISO 11359-2
CTE, 23°C to 150°C, xflow	4.5E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	217	°C	ISO 306
Vicat Softening Temp, Rate B/120	225	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	210	°C	ISO 75/Ae
Relative Temp Index, Elec	170	°C	UL 746B
Relative Temp Index, Mech w/impact	170	°C	UL 746B
Relative Temp Index, Mech w/o impact	170	°C	UL 746B
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.61	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.1 - 0.3	%	SABIC Method

Melt Flow Rate, 200°C/3.8 kgf	4.2	g/10 min	ASTM D 1238
Density	1.61	g/cm <sup>3</sup>	ISO 1183
Water Absorption, (23°C/sat)	0.8	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.4	%	ISO 62
Melt Volume Rate, MVR at 360°C/5.0 kg	5	cm <sup>3</sup> /10 min	ISO 1133

Source GMD, last updated:05/04/2007

## Processing

Parameter	Value	Unit
<b>Injection Molding</b>		
Drying Temperature	150	°C
Drying Time	4 - 6	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	370 - 410	°C
Nozzle Temperature	370 - 410	°C
Front - Zone 3 Temperature	380 - 420	°C
Middle - Zone 2 Temperature	370 - 410	°C
Rear - Zone 1 Temperature	350 - 390	°C
Hopper Temperature	80 - 100	°C
Mold Temperature	140 - 180	°C

Source GMD, last updated:05/04/2007

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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