+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

ULTEM™ Resin 1000E
Americas: COMMERCIAL

Transparent, standard flow Polyetherimide (Tg 217C) with internal mold release. ECO Conforming. US FDA and EU Food Contact compliant, NSF 51 Listing. Effective June, 2007 this grade will no longer be supported with biocompatibility information and should not be used for medical applications which require biocompatibility. Alternative grade HU1000E.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	1120	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	7	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	60	%	ASTM D 638
Tensile Modulus, 5 mm/min	36500	kgf/cm²	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	1680	kgf/cm²	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	35800	kgf/cm²	ASTM D 790
IMPACT			
Izod Impact, unnotched, 23°C	136	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
THERMAL			
Vicat Softening Temp, Rate B/50	218	°C	ASTM D 1525
HDT, 0.45 MPa, 6.4 mm, unannealed	210	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	201	°C	ASTM D 648
CTE, -20°C to 150°C, flow	5.58E-05	1/°C	ASTM E 831
CTE, -20°C to 150°C, xflow	5.4E-05	1/°C	ASTM E 831
Thermal Conductivity	0.22	W/m-°C	ASTM C 177
PHYSICAL			
Specific Gravity	1.27	-	ASTM D 792
Water Absorption, 24 hours	0.25	%	ASTM D 570
Water Absorption, equilibrium, 23C	1.25	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 337°C/6.6 kgf	12	g/10 min	ASTM D 1238

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Extrusion Blow Molding		
Drying Temperature	140 - 150	°C
Drying Time	4 - 6	hrs
Drying Time (Cumulative)	24	hrs
Maximum Moisture Content	0.01 - 0.02	%
Melt Temperature (Parison)	320 - 355	°C
Barrel - Zone 1 Temperature	325 - 350	°C
Barrel - Zone 2 Temperature	330 - 355	°C
Barrel - Zone 3 Temperature	330 - 355	°C
Barrel - Zone 4 Temperature	330 - 355	°C
Adapter - Zone 5 Temperature	330 - 355	°C
Head - Zone 6 - Top Temperature	330 - 355	°C
Head - Zone 7 - Bottom Temperature	330 - 355	°C
Screw Speed	10 - 70	rpm
Mold Temperature	65 - 175	°C
Die Temperature	325 - 355	°C

• DO NOT purge with low melting styrene or acrylic resins.
• Up to 30% Regrind has been successfully reprocessed.