



ULTEM™ Resin 2312
Americas: COMMERCIAL

30% Milled glass filled, enhanced flow Polyetherimide (Tg 217C). ECO Conforming, UL94 V0 and 5VA listing.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	1050	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3.5	%	ASTM D 638
Tensile Modulus, 5 mm/min	61100	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 2.6 mm/min, 100 mm span	1820	kgf/cm ²	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	66700	kgf/cm ²	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	3	cm-kgf/cm	ASTM D 256
Izod Impact, Reverse Notched, 3.2 mm	31	cm-kgf/cm	ASTM D 256
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	207	°C	ASTM D 648
CTE, -20°C to 150°C, flow	2.34E-05	1/°C	ASTM E 831
CTE, -20°C to 150°C, xflow	2.7E-05	1/°C	ASTM E 831
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			
Specific Gravity	1.51	-	ASTM D 792
Water Absorption, 24 hours	0.18	%	ASTM D 570
Water Absorption, equilibrium, 23C	0.98	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm (5)	0.3 - 0.4	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.45 - 0.55	%	SABIC Method
Melt Flow Rate, 337°C/6.6 kgf	10.1	g/10 min	ASTM D 1238
ELECTRICAL			
Relative Permittivity, 1 kHz	3.7	-	ASTM D 150
Relative Permittivity, 1 MHz	3.49	-	ASTM D 150





ULTEM™ Resin 2312
Americas: COMMERCIAL

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
ELECTRICAL			
Arc Resistance, Tungsten {PLC}	7	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	1	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	0	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	3	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	4	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	0.81	mm	UL 94





ULTEM™ Resin 2312
Americas: COMMERCIAL

PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	150	°C
Drying Time	4 - 6	hrs
Drying Time (Cumulative)	24	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	350 - 400	°C
Nozzle Temperature	345 - 400	°C
Front - Zone 3 Temperature	345 - 400	°C
Middle - Zone 2 Temperature	340 - 400	°C
Rear - Zone 1 Temperature	330 - 400	°C
Mold Temperature	135 - 165	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	40 - 70	rpm
Shot to Cylinder Size	40 - 60	%
Vent Depth	0.025 - 0.076	mm

