ULTEM*® *3451

Americas: COMMERCIAL

45% Glass fiber and mineral filled, standard flow Polyetherimide (Tg 217C) with enhanced dimensional stability. ECO Conforming.

TYPICAL PROPERTIES [1]	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	131	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.4	%	ASTM D 638
Tensile Modulus, 5 mm/min	11720	MPa	ASTM D 638
Flexural Stress, brk, 2.6 mm/min, 100 mm span	179	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	11720	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Izod Impact, Reverse Notched, 3.2 mm	230	J/m	ASTM D 256
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	213	°C	ASTM D 648
CTE, -20°C to 150°C, flow	1.08E-05	1/°C	ASTM E 831
CTE, -20°C to 150°C, xflow	2.16E-05	1/°C	ASTM E 831
PHYSICAL			
Specific Gravity	1.66	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.2 - 0.2	%	GE Method
Mold Shrinkage, xflow, 3.2 mm	0.3 - 0.5	%	GE Method
Melt Flow Rate, 337°C/6.6 kgf	2.7	g/10 min	ASTM D 1238

ULTEM*® *3451

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