



ULTEM® 1010
Americas: COMMERCIAL

Transparent, enhanced flow Polyetherimide (Tg 217C). ECO Conforming, UL94 V0 and 5VA listing. US FDA and EU Food Contact compliant, NSF 51 listing, ISO 10993 compliant in natural color.

Table with 4 columns: TYPICAL PROPERTIES 1, TYPICAL VALUE, UNIT, STANDARD. Rows include MECHANICAL (Tensile Stress, Strain, Modulus, Flexural, Hardness, Abrasion), IMPACT (Izod, Gardner), THERMAL (Vicat, HDT, CTE, Conductivity, Temp Index), PHYSICAL (Gravity, Water Absorption, Shrinkage, Melt Flow), and ELECTRICAL (Volume Resistivity).

1) Typical values only. Variations within normal tolerances are possible for various colours. All values are measured at least after 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume rate are measured on injection moulded samples. All samples are prepared according to ISO 294.

2) Only typical data for material selection purpose. 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) Own measurement according to UL.

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TYPICAL PROPERTIES ¹	TYPICAL VALUE	UNIT	STANDARD
Dielectric Strength, in air, 62 mils	830	V/mil	ASTM D 149
Dielectric Strength, in oil, 62 mils	710	V/mil	ASTM D 149
Relative Permittivity, 1 kHz	3.15	-	ASTM D 150
Dissipation Factor, 1 kHz	0.0013	-	ASTM D 150
Dissipation Factor, 2450 MHz	0.0025	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	1	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	2	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			
Oxygen Index (LOI)	44	%	ASTM D 2863
NBS Smoke Density, flaming, Ds 4 min	2	-	ASTM E 662

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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
Injection Molding		
Drying Temperature	300	°F
Drying Time	4 - 6	hrs
Drying Time (Cumulative)	24	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	660 - 750	°F
Nozzle Temperature	650 - 750	°F
Front - Zone 3 Temperature	650 - 750	°F
Middle - Zone 2 Temperature	640 - 750	°F
Rear - Zone 1 Temperature	630 - 750	°F
Mold Temperature	280 - 330	°F
Back Pressure	50 - 100	psi
Screw Speed	40 - 70	rpm
Shot to Cylinder Size	40 - 60	%
Vent Depth	0.001 - 0.003	in

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