

- ULTEM 1000 1000 -

PROPERTIES	UNIT	TEST METHOD	VALUES
<u>Physical</u>			
unreinforced			
Density	g/cm ³	ISO 1183	1.27
Coefficient of thermal expansion in flow direction CTE (23°C-60°C)	1/°C	ASTM D696	5.0-10 ⁻⁵
Water absorption at saturation at 23°C	%	ISO 62	1.25
<u>Mechanical</u>			
Tensile stress - at yield (at break) at 50 mm/min	MPa	ISO 527	105 (85)
Tensile strain - at yield (at break) at 50 mm/min	%	ISO 527	6 (60)
Tensile modulus at 1mm/min	MPa	ISO 527	3200
Flexural stress at yield at 2 mm/min	MPa	ISO 178	160
Flexural modulus at 2 mm/min	MPa	ISO 178	3300
Hardness H 358/30	MPa	ISO 2039-1	140
Hardness Rockwell R, M or L	-	ISO 2039-2	M109
Abrasion resistance Taber, CS-17, 1 kg	mg/1000cy	GE	10
Impact Izod notched at +23°C (- 30°C)	kJ/m ²	ISO 180-1A	6 (6)
<u>Thermal</u>			
Vicat A/50 10N (method A) à 50°C/h	°C	ISO 306	215
Vicat B/50 50N (method B) à 50°C/h	°C	ISO 306	211
HDT / Ae at 1,80 MPa	°C	ISO 75	190
HDT / Be at 0,45 MPa	°C	ISO 75	200
Relative Temperature Index RTI – electrical properties	°C	UL746B	170
Relative Temperature Index RTI – mechanical properties with impact	°C	UL746B	170
UL 94 rating flame class rating / at mm thickness	Class / mm	UL94	V0/0.41-5VA/1.60
Limited Oxygen Index- LOI	%	ASTM D2863	47
<u>Electrical</u>			
Dielectric strength at 3,2 mm	kV/mm	ASTM D149	33 / 25 / 16
Surface resistivity	Ohm	ASTM D257	>10 ¹⁵
Volume resistivity	Ohm,cm	ASTM D257	>10 ¹⁵
Dielectric constant at 50 Hz	-	ASTM D150	2.9
Dielectric constant at 1 MHz	-	ASTM D150	2.9
Dissipation factor at 50 Hz	-	ASTM D150	0.0005
Dissipation factor at 1 MHz	-	ASTM D150	0.006
Comparative Tracking Index - CTI	PLC	UL746A	4
Arc Resistance - D-495 - class	PLC	UL746A	5
High Voltage Arc - Tracking Rate – HVTR - class	PLC	UL746A	2

The values indicated are it with titles codes and do not engage to in no case the responsibility for company PHT



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