

# - ULTEM 2200 1000 -

PROPERTIES	UNIT	TEST METHOD	VALUES
<b><u>Physical</u></b>			
Glass reinforced 20%			
Density	g/cm <sup>3</sup>	ISO 1183	1.42
Coefficient of thermal expansion in flow direction CTE (23°C-60°C)	1/°C	ASTM D696	2.5.10 <sup>-5</sup>
Water absorption at saturation at 23°C	%	ISO 62	1
<b><u>Mechanical</u></b>			
Tensile stress - at break at 5 mm/min	MPa	ISO 527	140
Tensile strain - at break at 5 mm/min	%	ISO 527	4
Tensile modulus at 1mm/min	MPa	ISO 527	7600
Flexural stress at break at 2 mm/min	MPa	ISO 178	210
Flexural modulus at 2 mm/min	MPa	ISO 178	6000
Hardness H 358/30	MPa	ISO 2039-1	150
Hardness Rockwell R, M or L	-	ISO 2039-2	M109
Abrasion resistance Taber, CS-17, 1 kg	mg/1000cy	GE	15
Impact Izod unnotched at +23°C (- 30°C)	kJ/m <sup>2</sup>	ISO 180-1C	30 (30)
<b><u>Thermal</u></b>			
Vicat A/50 10N (method A) à 50°C/h	°C	ISO 306	223
Vicat B/50 50N (method B) à 50°C/h	°C	ISO 306	212
HDT / Ae at 1,80 MPa	°C	ISO 75	205
HDT / Be at 0,45 MPa	°C	ISO 75	210
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
Limited Oxygen Index- LOI	%	ASTM D2863	46
<b><u>Electrical</u></b>			
Dielectric strength at 3,2 mm	kV/mm	ASTM D149	34 / 26 / 16
Surface resistivity	Ohm	ASTM D257	>10 <sup>15</sup>
Volume resistivity	Ohm,cm	ASTM D257	>10 <sup>15</sup>
Dielectric constant at 50 Hz	-	ASTM D150	3.1
Dielectric constant at 1 MHz	-	ASTM D150	3
Dissipation factor at 50 Hz	-	ASTM D150	0.0008
Dissipation factor at 1 MHz	-	ASTM D150	0.0025
Comparative Tracking Index - CTI	PLC	UL746A	4
Arc Resistance - D-495 - class	PLC	UL746A	6
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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