

# Iten Industries

## Politen® ESP185 Performance Values

<u>Properties</u>	<u>Test Condition</u>	<u>ASTM</u>	<u>Values</u>
Thickness			.125 inches
Tensile Strength:	Lengthwise	D638	10,300 psi
	Crosswise		9,600 psi
Flexural Strength:	Condition A Lengthwise	D790	19,100 psi
	Condition A Crosswise		17,400 psi
	D48/50 Lengthwise		18,300 psi
	D48/50 Crosswise		15,400 psi
Compressive Strength:	Lengthwise	D695	18,200 psi
	Crosswise		16,200 psi
Izod Impact (notched):	Condition A Lengthwise	D256	9.6 ft.lb./in.
	Condition A Crosswise		7.7 ft.lb./in.
	D48/50 Lengthwise		10.2 ft.lb./in.
	D48/50 Crosswise		9.7 ft.lb./in.
	E48/50 Lengthwise		10.7 ft.lb./in.
	E48/50 Crosswise		10.0 ft.lb./in.
Water Absorption		D570	.25% of weight
Specific Gravity		D792	1.67
U.L. Subject 94		UL94	94 HB
Dielectric Strength		D149	216 Vpm
Dielectric Breakdown:	Condition A	D149	54.0 kV
	D48/50		26.0 kV
Arc Resistance:	Condition A	D495	114 seconds
	D48/50		125 seconds
Permittivity, 1MHz:	Condition A	D150	4.65
	D24/23		4.69
Dissipation Factor, 1MHz:	Condition A	D150	0.0120
	D24/23		0.0150
Permittivity, 1KHz:	Condition A	D150	4.91
	D24/23		5.14
Dissipation Factor, 1KHz:	Condition A	D150	0.0130
	D24/23		0.0370
Permittivity, 60Hz:	Condition A	D150	4.71
	D24/23		5.55
Dissipation Factor, 60Hz:	Condition A	D150	0.0120
	D24/23		0.1740
Temperature Rating:	Electrical		185° C
	Mechanical		185° C
Thermal Conductivity *		2.0 Btu-in/hour- square foot-°F	
Coefficient of Thermal Expansion *		.7 in/in/°C-10 <sup>-5</sup> .	
Halogen Content			0%

\* Nominal values

ESP185 was formerly HT2

Standard Sheet sizes are 36" x 72", 48" x 72", & 49" x 97"

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All values are average test results from typical production material. No warranty is implied or guaranteed and testing is recommended for each application.

*itenindustries.com*

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