

# Technical Data Sheet

## GEHR PPS®



### I. Physical Properties

	Test method	Unit	Value
1. Specific gravity	ASTM D792	g/cm <sup>3</sup>	1.35
2.a Water Absorption (saturation)	ASTM D570	%	0.03
2.b Humidity Absorption (saturation)			0.01
3.a Maximum permissible service temp.	UL 746B	°F	446
3.b Lower permissible service temp.			-

### II. Mechanical Properties

1. Tensile strength at yield	ASTM D638	psi	12,800
2. Tensile Modulus		-	
3. Elongation at yield		%	3
4. Tensile strength at break		psi	12,800
5. Elongation at break		%	15
6. Impact strength	ASTM D256	ft-lb/in	59
7. Notch impact strength		ft-lb/in	-
8. Ball indentation / Rockwell hardness	ASTM D785	R-Scale	-
9. Shore-D	ASTM D2240	-	-
10. Flexural strength	ASTM D790	psi	20,500
11. Flexural Modulus			580,000

### III. Thermal Properties

1. Vicat-softening point	VST/B/50	ASTM D1525	°F	-
	VST/A/50			-
2. Heat deflection temperature	HDT/B (66 psi)	ASTM D648	°F	-
	HDT/A (264 psi)			250
3. Coefficient of linear thermal expansion		ASTM D696	in/in/°F *10 <sup>-5</sup>	2.8
4. Thermal conductivity at 73 °F		ASTM C177	BTU/hr-ft*°F	2
5. Glass transition temperature		ASTM D3418	°F	194
6. Melting temperature				527

### IV. Electrical Properties

1. Volume resistivity	ASTM D257	Ω*cm	≥10 <sup>13</sup>
2. Surface resistivity		Ω	≥10 <sup>13</sup>
3. Dielectric constant at 1MHz	ASTM D150	-	3
4. Dielectric loss factor at 1 MHz		-	0.0013
5. Dielectric strength	ASTM D149	V/mil	760
6. Tracking resistance	IEC 60112	Grade	CTI 125

### V. Additional Data

1. Bondability	-	-	yes
2. Compliances	FDA	-	no
	NSF	-	no
3. Flammability	UL 94	-	V-0
4. Limited Oxygen Index (LOI)	ASTM D2863	%	47
5. UV stabilization	-	-	limited

All values are attributes of the used raw materials.

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