

# Technical Data Sheet

## GEHR PPSU®



### I. Physical Properties

	Test method	Unit	Value
1. Specific gravity	ASTM D792	g/cm <sup>3</sup>	1.29
2.a Water Absorption (saturation)	ASTM D570	%	0.4
2.b Humidity Absorption (saturation)			0.1
3.a Maximum permissible service temp.	UL 746B	°F	338
3.b Lower permissible service temp.			-58

### II. Mechanical Properties

1. Tensile strength at yield	ASTM D638	psi	10,100
2. Tensile Modulus			340,000
3. Elongation at yield		%	7.2
4. Tensile strength at break		psi	-
5. Elongation at break		%	60
6. Impact strength	ASTM D256	ft-lb/in	n.b.
7. Notch impact strength		ft-lb/in	13
8. Rockwell hardness	ASTM D785	R-Scale	-
9. Shore-D	ASTM D2240	-	86
10. Flexural strength	ASTM D790	psi	12,300
11. Flexural Modulus			333,500

### 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)			405
3. Coefficient of linear thermal expansion		ASTM D696	in/in/°F *10 <sup>-5</sup>	3.1
4. Thermal conductivity at 73 °F		ASTM C177	BTU/hr-ft*°F	1.7
5. Glass transition temperature		ASTM D3418	°F	428
6. Melting temperature				428

### IV. Electrical Properties

1. Volume resistivity	ASTM D257	Ω*cm	9.0E+15
2. Surface resistivity		Ω	>10 <sup>13</sup>
3. Dielectric constant at 1MHz	ASTM D150	-	3.44
4. Dielectric loss factor at 1 MHz		-	0.0089
5. Dielectric strength	ASTM D149	V/mil	380
6. Tracking resistance	IEC 60112	Grade	CTI 150

### V. Additional Data

1. Bondability	-	-	yes
2. Compliances	FDA	-	yes
	NSF	-	14 + 61
3. Flammability	UL 94	-	V-0
4. Limited Oxygen Index (LOI)	ASTM D2863	%	38
5. UV stabilization	-	-	yes

All values are attributes of the used raw materials.

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