

Technical Data Sheet

GEHR PVDF[®]



I. Physical Properties

	Test method	Unit	Value
1. Specific gravity	ASTM D792	g/cm ³	1.77
2.1 Water saturation	ASTM D570	%	0.04
2.2 Water equilibrium (50% RH)			0.01
3.a Maximum permissible service temp.	UL 746B	°F	302
3.b Lower permissible service temp.			-22

II. Mechanical Properties

1. Tensile strength at yield	ASTM D638	psi	7,300
2. Elongation at yield.		%	-
3. Tensile strength at break		psi	7,300
4. Elongation at break		%	50
5. Impact strength	ASTM D256	ft-lb/in	50
6. Notch impact strength		ft-lb/in	3
7. Ball indentation / Rockwell hardness	ASTM D785	R-Scale	-
8. Shore-D	ASTM D2240	-	80
9. Flexural strength	ASTM D638	psi	10,000
10. Modulus of elasticity			290,000

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)			230
3. Coefficient of linear thermal expansion	ASTM D696	in/in/°F*10 ⁻⁵		6.6
4. Thermal conductivity at 68 °F	ASTM C177	BTU/hr-ft*°F		1.32
5. Glass transition temperature	ASTM D3418	°F		-40
6. Melting temperature				340

IV. Electrical Properties

1. Volume resistivity	ASTM D257	Ω*cm	10 ¹³
2. Surface resistivity		Ω/SQ	10 ¹³
3. Dielectric constant at 1MHz	ASTM D150	-	4.5
4. Dielectric loss factor at 1 MHz		-	-
5. Dielectric strength	ASTM D149	V/mil	1,700
6. Tracking resistance	IEC 60112	Grade	-

V. Additional Data

1. Bondability	-	-	no
2. Physiological indifference ⁸⁾	FDA	-	yes
	NSF	-	51 + 61
3. Flammability ⁸⁾	UL 94	-	V-0
4. UV stabilisation	-	-	yes

⁸⁾ tested only for natural colored material

All values are attributes of the used raw materials.

The physical data contained in this table are typical values. They are obtained on test specimens under specific conditions and represent average values of a large number of tests. The results obtained on this tests specimens cannot be applied to finished parts without reservations, as behaviour is influenced by processing and shaping. Reproduction only with our definite permission.