

Technical Data Sheet

GEHR Halar®



I. Physical Properties

	Test method	Unit	Value
1. Specific gravity	ASTM D792	g/cm ³	1.71
2.a Water Absorption (saturation)	ASTM D570	%	< 0.1
2.b Humidity Absorption (saturation)			0.09
3.a Maximum permissible service temp.	UL 746B	°F	302
3.b Lower permissible service temp.			-104

II. Mechanical Properties

1. Tensile strength at yield	ASTM D638	psi	4,350
2. Tensile Modulus			240,000
3. Elongation at yield		%	5
4. Tensile strength at break		psi	6,820
5. Elongation at break		%	250
6. Impact strength	ASTM D256	ft-lb/in	-
7. Notch impact strength		ft-lb/in	n.b.
8. Ball indentation / Rockwell hardness	ASTM D785	R-Scale	90
9. Shore-D	ASTM D2240	-	75
10. Flexural strength	ASTM D790	psi	6,820
11. Flexural Modulus			245,000

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	194
	HDT/A (264 psi)			149
3. Coefficient of linear thermal expansion		ASTM D696	in/in/°F *10 ⁻⁵	5.6
4. Thermal conductivity at 73 °F		ASTM C177	BTU/hr-ft*°F	1
5. Glass transition temperature		ASTM D3418	°F	185
6. Melting temperature				437

IV. Electrical Properties

1. Volume resistivity	ASTM D257	Ω*cm	5.5x10 ¹⁶
2. Surface resistivity		Ω	≥10 ¹³
3. Dielectric constant at 1MHz	ASTM D150	-	2.57
4. Dielectric loss factor at 1 MHz		-	-
5. Dielectric strength	ASTM D149	V/mil	360
6. Tracking resistance	IEC 60112	Grade	-

V. Additional Data

1. Bondability	-	-	Limited ²⁾
2. Compliances ⁸⁾	FDA	-	yes
	NSF	-	61
3. Flammability ⁸⁾	UL 94	-	V-0 ⁷⁾
4. Limiting Oxygen Index (LOI)	ASTM D2863	%	52
4. UV stabilization	-	-	yes

²⁾ Pretreatment necessary

⁷⁾ tested but not listed

⁸⁾ tested only for natural colored material

All values are attributes of the used raw materials.

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