

# Technical Data Sheet

## GEHR PVDF®



### Physical Properties

General	Test Method	Unit	Value
Classification of PVDF	ASTM D3222/D8366	-	Type 1 Grade 2
Material Call-Out Designation	ASTM D6713	-	S-PVDF0112
Specific gravity	ASTM D792	g/cm <sup>3</sup>	1.77
Water Absorption (saturation)	ASTM D570	%	0.04
Humidity Absorption (saturation)	ASTM D570	%	0.01
<b>Mechanical</b>			
Tensile strength	ASTM D638	psi	7,300
Tensile Modulus	ASTM D638	psi	268,000
Izod Impact, Notched @73°F	ASTM D256	ft-lb/in	3
Hardness, Shore-D	ASTM D2240	-	78
Flexural strength	ASTM D790	psi	9,750
Flexural Modulus	ASTM D790	psi	268,000
<b>Thermal Properties</b>			
Heat Deflection Temperature; HDT/A @264 psi	ASTM D648	°F	230
Coefficient of linear thermal expansion	ASTM D696	in/in/°F x 10 <sup>-5</sup>	7.3
Melting Temperature	ASTM D3418	°F	340
Maximum permissible service temp.	UL 746B	°F	302
Lower permissible service temp.	UL 746B	°F	-22
<b>Electrical</b>			
Dielectric Strength	ASTM D149	Volts/mil	1700
Dielectric Constant	ASTM D150	1 kHz	4.5
Volume Resistivity	ASTM D257	Ohm-cm	2 x 10 <sup>14</sup>
<b>Fire Performance</b>			
Flammability	UL 94	-	V-0
Limiting Oxygen Index (LOI)	ASTM D2863	%	44
Cleanroom Materials Flammability Test Protocol	FM4910	-	Pass
<b>Regulatory Compliance</b>			
Drinking Water System components – Health Effects	NSF	-	Std 61
Food Contact – all food contact types, 250°F max.	NSF	-	Std 51
Physical Properties (i.e. Cell Class)	NSF	-	Std 14
Food Contact - repeated contact with food	FDA	-	CFR Title 21
Pharmaceutical and Medical Device*	USP*	-	Class VI*
Dairy	3-A Sanitary Standards Inc	-	3-A SSI
<b>Other</b>			
UV stabilization <sup>1)</sup>	-	-	yes
Ozone Resistance <sup>1)</sup>	-	-	yes
Gamma Radiation Resistance <sup>1)</sup>	-	-	yes

<sup>1)</sup> Contact GEHR Tech Services for additional information if necessary

The physical properties data contained herein are typical values and reflect the current state of our knowledge. The values are obtained on test specimens of the material under specific test conditions and represent average values of a large number of tests. This data is to be used a guideline only and should not be used for specification purposes for finished parts machined from GEHR stock shapes. Physical properties of finished parts can be influenced by material, processing, machining techniques, environmental factors, and part geometry. It is the end user's responsibility to determine the suitability for the intended application prior to use. GEHR plastics, Inc. (including its affiliates) does not warrant, promise, or guarantee the suitability of this product for use in specific applications and disclaims any implied warranties, including but not limited to any warranties of merchantability or fitness for a particular purpose.

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