

## KYNAR® 720 PVDF natural

### Chemical Designation

PVDF (Polyvinylidene fluoride)

### Colour

white translucent

### Density

1.77 g/cm<sup>3</sup>

### Main features

excellent chemical resistance  
inherent flame resistance  
high gamma radiation resistance  
good UV and weather resistance  
good mechanical properties  
low moisture absorption  
good machinability

### Target Industries

chemical plant engineering  
process engineering  
medical technology  
cleanroom technology

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Modulus of elasticity (tensile test)	@ 73 °F	300,000	psi	ASTM D 638	(1) Data obtained from public source
Tensile strength at yield	@ 73 °F	6,500	psi	ASTM D 638	1)
Tensile strength at break	@ 73 °F	5,000	psi	ASTM D 638	
Elongation at break	@ 73 °F	20	%	ASTM D 638	
Flexural strength	@ 73 °F	8,500	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	200,000	psi	ASTM D 790	
Compression strength	@ 73 °F, 10% strain	10,000	psi	ASTM D 695	
Compression modulus	@ 73 °F	160,000	psi	ASTM D 695	
Impact strength (Izod)	@ 73 °F	1.9	ft-lbs/in	ASTM D 256	
Rockwell hardness	D Scale	79		ASTM D 785	
<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Melting temperature		329	°F	-	1) (1) per ASTM D3418
Deflection temperature	@ 66 psi	257-284	°F	ASTM D 648	2) (2) Injection molded samples
Deflection temperature	@264 psi	221-239	°F	ASTM D 648	3) (3) Injection molded samples
Service temperature	Long Term	300	°F	-	4) (4) Data obtained from public source
Thermal expansion (CLTE)		7.3*10 <sup>-5</sup>	in/in/°F	ASTM D 696	5) (5) injection molded samples
Specific heat		0.28-0.36	BTU/lb-F°	*** new ***	6) (6) Injection molded data
Thermal conductivity		1.18-1.32	BTU-in/hr-ft <sup>2</sup> -°F	ASTM C 177	7) (7) injection molded data
<i>Electrical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Volume resistivity	@ 73 °F, 65% RH	2*10 <sup>14</sup>	Ω*cm	ASTM D 257	1) (1) Injection molded data
Dielectric strength		1700	V/mil	ASTM D 149	2) (2) Injection molded samples
Dissipation factor	@ 100 Hz, 73 °F	0.01--0.21		ASTM D 150	3) (3) injection molded data
Dielectric constant	@ 100 MHz, 73 °F	4.5		ASTM D 150	4) (4) injection molded data
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Moisture absorption	@ 24 hrs, 73 °F	0.02	%	ASTM D 570	(1) Thickness greater than 0.1mm Injection molded samples
Flammability (UL94)		V0		-	1)

This material can be processed as a thermoplastic taking the normal technical provisions into account. The above mentioned information refers exclusively to the injection moulding process.

This information reflects the current state of our knowledge and is intended only to assist and advise. It is given without obligation or liability. It does not assure or guarantee chemical resistance, quality of products or their suitability in any legally binding way. Values are not minimum or maximum values, but guidelines that can be used for comparative purposes in material selection. They are within the normal range of product properties and do not represent guaranteed property values. Testing under individual application circumstances is always recommended. Data is obtained from extruded shapes material unless otherwise noted. References to FDA compliance refer to the resins from which the products were made unless otherwise noted. All trade and patent rights should be observed. All rights reserved. Data sheet values are subject to periodic review, the most recent update can be found at [www.ensingerplastics.com](http://www.ensingerplastics.com).

**Ensinger Precision Components**  
11 Danco Road  
Putnam CT 06260 USA

Date: 2020/11/09

Version: A0

Phone 860-928-7911  
Fax 860-928-2229  
Email: [info@ensinger-pc.com](mailto:info@ensinger-pc.com)