



# Virgin PTFE Datasheet

Typical properties of virgin PTFE:

Property	Method	Units	Values
Specific gravity	ASTM D792	-	2.13 - 2.20
Tensile strength	ASTM D638	MPa	20 - 35
Elongation at break	ASTM D638	%	210 - 350
Hardness	ASTM D2240	Shore D	50 - 60
Flexural strength	ASTM D790	N/mm <sup>2</sup>	No break
Flexural modulus	23° C	N/mm <sup>2</sup>	600 - 700
Impact strength 23° C	ASTM D256	J/cm	1.65
Deformation under load	ASTM D695	%	10 - 13
Permanent deformation	ASTM D695	%	6 - 7.5
Dielectric constant	ASTM D150	-	2.1
Dielectric strength	ASTM D149	kV/mm	20 - 70
Volume resistivity	ASTM D257	Ohm cm	10 <sup>18</sup>
Melting point		° C	327
Working temp		° C	-200 to +260
Flammability rating	UL94		V0
Limiting oxygen index	ASTM D2863	%	>95
Coefficient of linear thermal expansion	ASTM D696 ASTM D831	78 - 400° F 25 - 100° C	4 - 9 x 10 <sup>-5</sup> 16 x 1 <sup>-5</sup>

All properties contained in this datasheet should be considered as typical properties and are not to be used for specification purposes. Furthermore, the information set forth herein shall not, in part or in whole, be construed as constituting a warranty, expressed or implied, nor shall it form or be a part of the basis of any bargain with Vital Polymers. THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE EXCLUDED AND SHALL NOT APPLY. This datasheet provides typical properties to be further investigated by buyers/users having technical expertise. The buyer/user, through its own analysis and testing, is solely responsible for making the final selection of the products and for assuming that all performance, safety, and warning requirements for the application are met. Vital Polymers recommends that buyers/users perform evaluation testing under actual service conditions to determine whether the product is suitable for the intended purpose.

**Vital Polymers, LLC** • 3651 Wright Way Road • Dayton, OH 45424  
Phone: (937) 235-6311 • Fax: (937) 235-9223 • [www.vitalpolymers.com](http://www.vitalpolymers.com)