



VICTREX® PEEK FILM TECHNOLOGY

Properties of APTIV® Film Grades*

Property	Test Method	Test Condition	Units	APTIV 1000-050G		APTIV 2000-050		APTIV 1102-050M		APTIV 1103-050M		APTIV 1300-050G		APTIV 2102-100M	
				MD	TD	MD	TD	MD	TD	MD	TD	MD	TD	MD	TD
Tensile Modulus	ISO 527	23°C (73°F)	GPa (kpsi)	2.5 (363)	2.5 (363)	1.8 (261)	1.8 (261)	4.8 (696)	4.3 (624)	5.5 (798)	4.5 (653)	2.5 (363)	2.5 (363)	3.5 (508)	3.0 (435)
Tensile Strength (at break)	ISO 527	23°C (73°F)	MPa (kpsi)	130 (18.9)	120 (17.4)	120 (17.4)	120 (17.4)	100 (14.5)	80 (11.6)	90 (13.1)	90 (13.1)	120 (17.4)	110 (16.0)	100 (14.5)	90 (13.1)
Tensile Elongation (at break)	ISO 527	23°C (73°F)	%	>150	>150	>200	>200	>100	>10	>10	<10	>150	>150	>150	>150
Puncture Strength	Def Stan 81-75	23°C (73°F)	kJ/m² (cal/ft²)	26 (577)	26 (577)	40 (888)	40 (888)	5 (111)	5 (111)	4 (89)	4 (89)				
Tear Strength	ISO 6383-1	23°C (73°F)	N/mm (lb/in)	6 (34)	8 (45)	6 (34)	6 (34)	6 (34)	7 (39)	5 (28)	6 (34)				
Shrinkage	TM-VX-84	200°C (392°F)	%	≤0.5	≤0.5	<10	<5	≤0.5	≤0.5	≤0.5	≤0.5	≤2	≤2	≤0.5	≤0.5
Water Absorption (50%RH)	ISO 62	23°C (73°F), 24h	%	0.04		0.21		0.08		0.09					
Specific Gravity	ISO 1183	23°C (73°F)		1.30		1.26		1.45		1.54		1.30		1.42	
Coefficient of Linear Thermal Expansion	ASTM D696	MD, below T _g	ppm/°C	47		60		35		18					
Dielectric Strength	ASTM D149 6.35mm (0.25in) electrode	23°C (73°F)	kV/mm (V/mil)	190 (4826)		190 (4826)		200 (5080)		200 (5080)		190 (4826)			
Dielectric Constant	ASTM D150	23°C (73°F), 10 MHz		3.5		3.3		3.6		3.5					
Loss Tangent	ASTM D150	23°C (73°F), 10 MHz		0.002		0.003		0.001		0.001					
Volume Resistivity	ASTM D257	23°C (73°F), 100V	Ohm cm	4.00E+16		2.00E+16		1.00E+16		1.00E+16		4.00E+16		1.00E+16	

* Testing on 50 micron films unless indicated.

World Headquarters

Victrex plc
Hillhouse International
Thornton Cleveleys
Lancashire FY5 4QD
United Kingdom
Tel: + (44) 1253 897700
Fax: + (44) 1253 897701
Email: victrexplc@victrex.com

Americas

Victrex USA Inc
300 Conshohocken State Road
Suite 120
West Conshohocken, PA 19428
USA
Tel: + (1) 800-VICTREX
Tel: + (1) 484-342-6001
Fax: + (1) 484-342-6002
Email: americas@victrex.com

Europe

Victrex Europa GmbH
Langgasse 16
65719 Hofheim/Ts.
Germany
Tel: + (49) 6192 96490
Fax: + (49) 6192 964948
Email: eurosales@victrex.com

Asia Pacific

Victrex Japan Inc.
Mita Kokusai Building Annex
4-28, Mita 1-chome
Minato-ku
Tokyo 108-0073
Japan
Tel: +81 (0)3 5427 4650
Fax: +81 (0)3 5427 4651
Email: japansales@victrex.com

Asia Pacific

Victrex High Performance
Materials (Shanghai) Co Ltd
Part B Building G
No. 1688 Zhuanxing Road
Xinzhuan Industry Park
Shanghai 201108
China
Tel: + (86) 21-6113 6900
Fax: + (86) 21-6113 6901
Email: scsales@victrex.com

VICTREX PLC BELIEVES THAT THE INFORMATION CONTAINED IN THIS BROCHURE IS AN ACCURATE DESCRIPTION OF THE TYPICAL CHARACTERISTICS AND/OR USES OF THE PRODUCT OR PRODUCTS, BUT IT IS THE CUSTOMER'S RESPONSIBILITY TO THOROUGHLY TEST THE PRODUCT IN EACH SPECIFIC APPLICATION TO DETERMINE ITS PERFORMANCE, EFFICACY AND SAFETY FOR EACH END-USE PRODUCT, DEVICE OR OTHER APPLICATION. SUGGESTIONS OF USES SHOULD NOT BE TAKEN AS INDUCEMENTS TO INFRINGE ANY PARTICULAR PATENT. THE INFORMATION AND DATA CONTAINED HEREIN ARE BASED ON INFORMATION WE BELIEVE RELIABLE. MENTION OF A PRODUCT IN THIS DOCUMENTATION IS NOT A GUARANTEE OF AVAILABILITY. VICTREX PLC RESERVES THE RIGHT TO MODIFY PRODUCTS, SPECIFICATIONS AND/OR PACKAGING AS PART OF A CONTINUOUS PROGRAM OF PRODUCT DEVELOPMENT. VICTREX® IS A REGISTERED TRADEMARK OF VICTREX MANUFACTURING LIMITED. VICTREX PIPES™ IS A TRADEMARK OF VICTREX MANUFACTURING LIMITED. PEEK-ESD™, HT™, ST™ AND WG™ ARE TRADEMARKS OF VICTREX PLC. VICOTE® AND APTIV® ARE REGISTERED TRADEMARKS OF VICTREX PLC.

VICTREX PLC MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR OF INTELLECTUAL PROPERTY NON-INFRINGEMENT, INCLUDING, BUT NOT LIMITED TO PATENT NON-INFRINGEMENT, WHICH ARE EXPRESSLY DISCLAIMED, WHETHER EXPRESS OR IMPLIED, IN FACT OR BY LAW. FURTHER, VICTREX PLC MAKES NO WARRANTY TO YOUR CUSTOMERS OR AGENTS, AND HAS NOT AUTHORIZED ANYONE TO MAKE ANY REPRESENTATION OR WARRANTY OTHER THAN AS PROVIDED ABOVE. VICTREX PLC SHALL IN NO EVENT BE LIABLE FOR ANY GENERAL, INDIRECT, SPECIAL, CONSEQUENTIAL, PUNITIVE, INCIDENTAL OR SIMILAR DAMAGES, INCLUDING WITHOUT LIMITATION, DAMAGES FOR HARM TO BUSINESS, LOST PROFITS OR LOST SAVINGS, EVEN IF VICTREX HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, REGARDLESS OF THE FORM OF ACTION.

