

## Isoflon Virgin PTFE Polytetrafluoroethylene

Category: Polymer, Thermoplastic, Fluoropolymer, PTFE, Polytetrafluoroethylene (PTFE), Molded

## **Material Notes:**

Properties/Improved compression and wear resistanceExcellent chemical stabilityBetter thermal conductivityExcellent resistance to continuous service temperatures up to  $260 \text{\AA}^{\circ}\text{C}$ , and, for limited periods, even to higher temperaturesChemical resistance: PTFE possesses a high inertness towards nearly all known chemicals. It is only attacked by elemental alkali metals, chlorine trifluoride and elemental fluorine at high temperatures and pressures. Solvents resistance: PTFE is insoluble in all solvents up to temperatures as high as  $300 \text{\AA}^{\circ}\text{C}$ . Certain highly fluorinated oils only swell and dissolve PTFE close to the crystalline melting point. Information provided by Isoflon.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Isoflon-Virgin-PTFE-Polytetrafluoroethylene.php

Physical Properties	Metric	English	Comments
Specific Gravity	2.13 - 2.18 g/cc	2.13 - 2.18 g/cc	ISO 1183
Water Absorption	0.0010 %	0.0010 %	ASTM D570
Deformation	6.0 - 7.5 %	6.0 - 7.5 %	After relaxation period; ASTM D695
	@Time 86400 sec	@Time 24.0 hour	
	10 - 13 %	10 - 13 %	
	@Time 86400 sec, Pressure 13.7 MPa	@Time 24.0 hour, Pressure 1990 psi	Under load; ASTM D695

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	54 - 60	54 - 60	ISO 868
Tensile Strength	20.0 - 30.0 MPa	2900 - 4350 psi	ISO 527
Elongation at Break	200 - 300 %	200 - 300 %	ISO 527
Flexural Modulus	0.600 - 0.700 GPa	87.0 - 102 ksi	
Coefficient of Friction, Dynamic	0.070	0.070	ASTM D1894

Thermal Properties	Metric	English	Comments
Melting Point	325 - 335 °C	617 - 635 °F	
Maximum Service Temperature, Air	260 °C	500 °F	Continuous
Minimum Service Temperature, Air	-200 °C	-328 °F	Continuous
Flammability, UL94	V-0	V-0	



Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+18 ohm-cm	1.00e+18 ohm-cm	ASTM D 257
Dielectric Constant	2.1	2.1	ASTM D150
	@Frequency 6.00e+7 - 2.00e+9 Hz	@Frequency 6.00e+7 - 2.00e+9 Hz	
Dielectric Strength	20.0 - 70.0 kV/mm	508 - 1780 kV/in	ASTM D149

## **Contact Songhan Plastic Technology Co.,Ltd.**

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