TBJ SEALING TECHNOLOGIES

TBJ-UTEX INDUSTRIES

POLYTETRAFLUOROETHYLENE (PTFE/TEFLON)

PTFE, also known as Teflon, is a non-toxic thermoplastic that is being used in many industries. PTFE has one of the lowest frictional coefficients of 0.10 as compared to any other plastic. PTFE also maintain high strength, toughness and flexibility at temperature below zero degree celcius. Due to its excellent properties, it is commonly used for wiring in aerospace and computer applications.

PTFE Features:

- Low frictional coefficient
- High strength and toughness
- Chemical inertness
- Superior chemical and thermal properties
- Self-lubrication
- Subject to creep

ADDITIONAL INFORMATION

Applications:

PTFE is widely used in aerospace, IT, electronics and mechanical industry. PTFE's dielectric properties allow it to be a good material for insulation of cables, connector and printed circuit boards (PCB). Its high melting temperature makes it a good substitute for other lower temperature plastic in thermal related projects. For other industrial application, PTFE are often used to make bearings, gear or slide plates due to its low frictional properties.

Form: Sheet, Rod

Thickness: Up to 50mm

Diameter: Up to 200mm

Colour: White

Standard Size: 1000mm x 2000m, 1200mm x 1200mm, Rod – 1000mm, 300mm (above dia. 80mm)

bsi. ISO 9001 Quality Management
Certificate Number: FM 646287
ISO 9001:2008

STANDARDS MALAYSIA ACCREDITED LABORATORY
MS ISO/IEC 17021: 2011
QS26122016 CB 16

TBJ-UTEX INDUSTRIES (M) SDN. BHD. TBJ * 319073-P *

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TEFLON GENERAL PROOERTIES	ASTM/ UL Test	PTFE (Unfilled)	PTFE (25% Glass Filled)	PTFE (25% Graphite Filled)
PHYSICAL				
Density (g/m³)	D792	2.17	2.26	2.05
Water Absorption, 24hrs(%)	D570	<0.01	<0.02	<0.04
MECHANICAL				
Tensile Strength (psi)	D638	3850	2140	1880
Tensile Modulus (psi)	D638	79600	/	/
Tensile Elongetion at; Break(%)	D638	310	260	78
Flexural Strength (psi)	D790		1980	2400
Flexural Modulus (psi)	D790	71500	186000	158000
Compressive Strength (psi)	D695	3480	1200	1720
Compressive Modulus (psi)	D695	70200	115000	86000
Hardness, Shore1)	D785		D65	D50
LZOD Notched Impnet (ft-ib/in)	D256			
THERMAL				
Coelf of Thermal Expansion($x10^5$ in./in./°F)	D696	7.4	6.2	5.8
Heat Deflection Temp(°F/°C)at 264 psi	D648	134/54	152/67	152/68
Melting Temp(°F/°C)	D3418	634/334	634/334	634/334
Max Operating Temp(°F/°C)	-	508/265	508/265	508/265
Thermal Conductivity(BTU-in/ft².hr.°F)	C177	1.72	3.0	4.3
Flammability Rating	UL94	V-0	V-0	V-0
ELECTRICAL				
Dielectic Strength (V/mil)short Time,1/8thk	D149	286	/	/
Dielectic Constant at 1MHz	D150	2.1	2.4	/
Dissipation Factor at 1MHz	D150	<0.0002	0.04	/
Volume Resistivity(ohm-cm)at 50%RH	D257	$>10_{18}$	$>10_{15}$	10^4

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**The data is based on sample test, but not as standard of the products property.*