

MICRO POLYMER PRODUCTS

% ASTM D-696																	TODINDR TRODUCTO	HORC												
2. Tensile Strength	55% Bronze +5% Mos Filled PTFE	onze lled	Bro Fil	e d	Bronze Filled	ss ed	Gla Fill	ss led	Gla Fil	ass Mos	Gla +5%	Glass Filled	G F		est Method	Unit	Property													
3. Elongation of Break % ASTM D-638 250 - 400 200 - 300 220 320 100 - 150 175 - 225 100 - 175 180 - 160 4. Compressive Strength Kgl/cmi ASTM D-695 4000 7000 7000 7000 8000 8500 8800 5. Compressive Modulus Kgl/cmi ASTM D-695 40 - 50 75 - 85 65 - 75 75 - 85 65 - 75 85 - 100 115 - 125 6. Deformation under Load A. 2 Hrs. 23 C 113 Kg. cmi B. 24Hrs. 23 C 113 Kg. cmi C. Permanent D. 2 Hrs. 150 Č 113 Kg. cmi 7. Flexural Strength Kgl/cmi ASTM D-790 57 42 50 96 60 85 80 8. Flexural Modulus Kgl/cmi ASTM D-790 3500 - 6300 16700 20000 11900 11000 140000 13800 9. Impact Strength ASTM D-256 15 11 12 10 14 9 10 10. Hard ness Shore -D ASTM D-2240 60 - 65 70 - 75 62 - 68 70 - 75 60 - 65 70 - 75 70 - 75 11. Co-efficient of Friction A-Dynamic P-7 Kg/cmi V-0.5 m/s B. Static P-35 Kg/cmi - 0.05 - 0.08 0.11 - 0.13 0.08 - 0.01 0.09 - 0.11 0.08 - 0.10 0.08 - 0.10 0.08 - 0.11 12. Water Absorption % ASTM D-570 0 0.013 0.015 0 0 0 0 0 B. Static P-35 Kg/cmi V-0.5 m/s B. Static P-35 Kg/cmi V-0.5 m/s ASTM D-696 24 2.3 2.2 1.0 2.3 1.8 1.9 1.5 2.0 1.7 1.85 1.55 1.8 1.5 1.5 1.5 0.7 1.5 1.0 1.2 1.0 1.3 1.0 1.15 0.95 1.1 0.95 1	3.8 - 3.9	3.75- 3.8		.2	3.1 - 3.	2.14 - 2.16		2.12 - 2-14		2.23 - 2.24		2.24 - 2.25		2.1 - 2.2	ASTM D-792	gm/cc	Density	1.												
4. Compressive Strength	110 - 145	105 - 140 1		50	125 - 1	150 - 200		120 - 155		150 - 220		5 - 200	125	210 - 350	ASTM D-638	Kgf/cm²	Tensile Strength	2.												
Second Compressive Modulus Kgf/cm ASTM D-695 40 -50 75 - 85 65 - 75 75 - 85 65 - 75 85 - 100 115 - 125	90 - 165	180 - 160 90 - 1		75	100 - 17	- 225	175	150	100 -	- 320	220	0 - 300	200	250 - 400	ASTM D-638	%	Elongation of Break	3.												
6. Deformation under Load A. 2 Hrs. 23 C 113 Kg. cm B. 24Hrs. 23 C 113 Kg. cm C. Permanent % ASTM D-621 7 8 6 5 4 0 7 8 6 6 5 ASTM D-621 7 8 6 6 5 ASTM D-621 7 8 6 6 5 4 0 7 8 6 6 5 8 6 5 8 7 8 6 5 8 7 8 7 8 8 6 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8800	8800)	8500	8000		7000		7000		7000		4000	ASTM D-695	Kgf/cm²	Compressive Strength	4.												
A. 2 Hrs. 23 C 113 Kg. cm	115 - 125	125	115 -	0	85 - 10	- 75	65	85	75 ·	- 75	65	5 - 85	75	40 -50	ASTM D-695	Kgf/cm²	Compressive Modulus	5.												
B. 24Hrs. 23 C 113 Kg. cm																	Deformation under Load	6.												
C. Permanent C. Permanent C. Permanent D. 2 Hrs.150 C 113 Kg. cm SSIM D-621 S55 S0 S0 35 43 42 40	4	7		·		-		10		9				0/2	A. 2 Hrs. 23 C 113 Kg. cm ²															
C. Permanent D. 2 Hrs. 150 © 113 Kg. cm S55 S50 S50 S50 S55 S5	5												A STM D.621		B. 24Hrs. 23 C 113 Kg. cm ²															
7. Flexural Strength	2.5	.5	2.	3		4.5		3.5							A31W D-021	/0	C. Permanent													
8. Flexural Modulus Kgf/cm ASTM D-790 3500 - 6300 16700 20000 11900 11000 14000 13800 9. Impact Strength A 20°C cmkgf/cm ASTM D-256 9 9.5 9 8 10 11 11 10. Hard ness Shore -D ASTM D-2240 60 - 65 70 - 75 62 - 68 70 - 75 60 - 65 70 - 75 70 - 75 11. Co-efficient of Friction A-Dynamic P-7 Kg/cm V-0.5 m/s 0.04 - 0.06 0.5 - 0.54 0.45 - 0.20 0.12 - 0.17 0.11 - 0.16 0.11 - 0.15 0.12 - 0.16 B. Static P-35 Kg/cm - 0.05 - 0.08 0.11 - 0.13 0.08 - 0.01 0.09 - 0.11 0.08 - 0.10 0.08 - 0.10 0.08 - 0.1 12. Warer Absorption % ASTM D-570 0 0.013 0.015 0 0 0 0 13. Heat Resistance at Atm. Pressure C -250 tc + 260 -250 tc + 260 14. Thermal Conductivity 10°cal Cal S c Cenco Fitch 6 9 9 13 14 17 19 15. Linear Thermal Expansion A. 30 - 150°c % ASTM D-696 1.5 1.5 1.5 0.7 1.5 1.0 1.2 1.0 1.3 1.0 1.15 0.95 1.1 0.9 15. Linear Thermal Expansion A. 30 - 150°c % ASTM D-696 1.5 1.5 1.5 0.7 1.5 1.0 1.2 1.0 1.3 1.0 1.15 0.95 1.1 0.9 16. Dielectric Strength Kv/mm ASTM D-149 24 12 16 2 2 Conductive 10°cal 1.5 1.5 1.8 1.5		40		\Box	42	43		35		50		50		55			D. 2 Hrs.150 Č 113 Kg. cm ²													
9. Impact Strength A 20°C B 20°C Comkgf/cm ASTM D-256 B 20°C ASTM D-2240 60 - 65 70 - 75 62 - 68 70 - 75 60 - 65 70 - 75 70 - 75 70 - 75 11. Co-efficient of Friction A-Dynamic P-7 Kg/cm V-0.5 m/s B. Static P-35 Kg/cm - 0.05 - 0.08 0.11 - 0.13 0.08 - 0.01 0.09 - 0.11 0.08 - 0.10 0.08 - 0.10 0.08 - 0.1 12. Warer Absorption % ASTM D-570 0 0.013 0.015 0 0 0 0 13. Heat Resistance at Atm. Pressure C 14. Thermal Conductivity 10° cal Cal S c Cenco Fitch ASTM D-696 ASTM D-696 B. 30 - 250°C 1.5 1.5 1.5 0.7 1.5 1.0 1.2 1.0 1.3 1.0 1.15 0.95 1.1 0.9 ASTM D-696 ASTM D-697 ASTM D-697 1.5 1.5 0.7 1.5 1.0 1.2 1.0 1.3 1.0 1.15 0.95 1.1 0.9 ASTM D-698 ASTM D-698 10° 10° 10° 10° 10° 10° 10° 10° 10° 10°	80	80		85 80		60		60		60		60		60		60 85		96		96		0	5	42		57	STM D-790	Kgf/cm	Flexural Strength	7.
A 20°C C	13500	800	138	0	1400	000	11	000	119	000	20	6700	1	3500 - 6300	ASTM D-790	Kgf/cm	Flexural Modulus	8.												
B 2 ° C				T													Impact Strength	9.												
10	11	1	1		11	10		8		9		9.5		9	OTM D OFC	2	A 20°C													
11. Co-efficient of Friction A-Dynamic P-7 Kg/cm V-0.5 m/s B. Static P-35 Kg/cm	10	9 10		9	14		10		12		11		15	151M D-256	cmkgr/cm	B 20°C														
A-Dynamic P-7 Kg/cm V-0.5 m/s 0.04 - 0.06 0.5 - 0.54 0.45 - 0.20 0.12 - 0.17 0.11 - 0.16 0.11 - 0.15 0.12 - 0.16	70 -75	70 -75		5	70 -75	- 65	60	75	70 -	- 68	62	0- 75	70	60 - 65	STM D-2240	Shore -D	Hard ness	10.												
B. Static P-35 Kg/cm² -				寸													Co-efficient of Friction	11.												
12. Warer Absorption	0.1 - 0.14	- 0.16	0.12 -	.15	0.11 - 0.	0.16	0.11	0.17	0.12 -	0.20	0.45 -	- 0.54	0.5 -	0.04 - 0.06			A-Dynamic P-7 Kg/cm V-0.5 m/s													
13. Heat Resistance at Atm. Pressure C	0.07 - 0.09	0.1	0.08-	.10	0.08 - 0.	0.10	0.08	0.11	0.09 -	- 0.01	0.08	- 0.13	0.11	0.05 - 0.08		À	B. Static P-35 Kg/cm ²													
14. Thermal Conductivity	0		0	\neg	0)	((015	0.	.013	0.	0	ASTM D-570	%	Warer Absorption	12.												
Axial Radial Axia				\neg					+ 260	-250 to						°C	Heat Resistance at Atm. Pressure	13.												
A. 30 -150°c B. 30 -250°c C. 30 -250°c Moreover and the second	19	9	19		17	4	1		13	9	,	9		6	Cenco Fitch	10 cal Cal S c	Thermal Conductivity													
B. 30 -250°c % ASTM D-696 2.4 2.3 2.2 1.0 2.3 1.8 1.9 1.5 2.0 1.7 1.85 1.55 1.8 1.5		Radial	Axial F	_		Radial				Radial			_	Axial Radial				15.												
B. 30 -250°c 2.4 2.3 2.2 1.0 2.3 1.8 1.9 1.5 2.0 1.7 1.85 1.55 1.8 1.5	1.1 0.9	0.9		_									_		ASTM D-696	0/2														
16. Dielectric Strength Kv/mm ASTM D-149 24 12 16 2 2 Conductive 17. Volume Resistivity 0hm cm ASTM D-257 10° 10° 10° 10° 10° 10° 10° 10° 10° 10°	1.8 1.5	1.5		_		1.7	2.0						_			70														
17. Volume Resistivity Ohm cm ASTM D-257 10°	2.5 2.2	2.2	2.5	_																										
18. Surface Resistivity ohm ASTM D-258 10 ¹⁵ 10 ¹⁵ 10 ¹⁵ 10 ¹ 10 ⁵		·								6	1						· ·													
Chemical Resistance: PTFE is chemically inert & in affected by all known Chemical expert Itern or dissolved alkali metals sodium, potassium, rubidium, mo. 19. cesium, francium & fluorine gas, certain fluorine compounds & complexes at elevated temperatures. Filled PTEF Has Interior Chemical resistance	10 ⁷			_		10³		10 ⁴		1015		10	1	10 15		0hm cm		17.												
19. mo. cesium, francium & fluorine gas, certain fluorine compounds & complexes at elevated temperatures. Filled PTEF Has Interior Chemical resistance	10°	0°	10			-				-								18.												
				n,	nce	ıl resista	Chemica	Interior	TEF Has	Filled P	eratures.	ed tempe	elevate	complexes at e	compounds & c	rtain fluorine filler.	mo. cesium, francium & fluorine gas, ce depending upon the particular													
20. We also manufacture filled grade products with percentage of fillers as per customer's specifications.					0. We also manufacture filled grade products with percentage of fillers as per customer's specifications.												20.													
Note: 1 Data guided as a average values & may very with source and grade of raw material											torial	FAU: 10-4	do et -	Iron and are	ioni with o	Jugo 0 ma		No												

Data quoted ar e average values & may very with source and grade of raw material.

2. Values may be used for design with consideration of factor of safety.

3. Company do not accepts any responsibility of results obtained and infringement of any parents.



ISO Certificate No : 21EQE112

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BIGGEST
Product Range
in all PTTF Basic
Shapes & Subshapes

PTFE MOLDING Upto 600mm Dia (0.6 Mtr. Dia)

FILLED PTFE
GRADES
Available Under
One Roof





MICRO POLYMER PRODUCTS

THE HOME OF PTFE PRODUCTS

An ISO 9001: 2015 Certified Company

Website: www.micropolymerproducts.in



MICRO POLYMER PRODUCTS

PTFE

Invented by Dr. Roy J. Pluncket, a Scientist Dr. Pont Nemours U.S.A. on 6 April 1938. TFE Monomer is generally Manufactured by synthesis of Calcium Fluoride, Sulphuric Acid & Choroform. The Polymerization of TFE is carried out in carefully controlled conditions to form PTFE.

PTFE is high Performance Engineering Speciality Polymer. It Has a Unique Position in the polymer in the polymer Industry due to its versatile characteristics.

PTFE (Polytetrafluoroethylene) is a synthetic fluoropolymer of tetrafluoroethylene that has numerous applications. PTFE is a fluorocarbon solid, as it is a high-molecular -weight compound consisting wholy of carbon and fluorine. PTFE is hydrophobic: neither water nor water-containing substances wet PTFE, as fluorocarbons demonstrate mitigated London dispersion forces due to the high electronegativity of fluorine.

Due to its versatile and wonderful properties, ptfe inds diverse applications in various industries such as chemical, Pharmaceutical, electrical, Power Plants, fertilisers, paper, railways, shipping, aircrafts, spacerafts, and machine tools manufacturing etc, practically all Kinds of industires are demanding ptfe for existing and new applications due to itsunique and exceptional properties.

Basic Properties of PTFE

- Extremely low coefficient of friction
- Chemical Inertness
- Non-Adhesive Properties
- Broad range of service temperature (-260C to + 260C)
- Low dielectric constant and loss factor
- Excellent chemical resistance
- FDA Compliance for Food Constant
- Low Water Absorption
- Inherent UV Resistant
- Resistance to Magnetic field
- Non toxic

PTFE Grades

- 100% Pure PTFE
- Peek PTFE
- 15 to 25% Glass Filled PTFE
- 25 to 35 % Carbon Filled PTFE
- 15% Graphite Filled PTFE
- 40 to 60% Bronzed Filled PTFE
- 55 to 5% Bronzed + Molybdenum Disuphide Filled PTFE
- 15 to 5% Glass + MOS2 Filled PTFE
- Pigmented PTFE



Gujarat Fluorochemicals Limited, Noida



MICRO POLYMER PRODUCTS

Our Products



PTFE MOLDED & EXTRUDED ROD

Diameter - 5mm to 100mm (Standard) Length - 900mm or 100mm (Standard) Specific Length Length & Diameter available as per customer's Requirement



PEEK PTFE (Polyther Ketone)

5 to 20% Peek PTFE Products as per customer Specification Excellent Dimension stability than PTFE. Ideal for stop - start application to eliminate stick - sleep high continues use temprature (up to 260°C)



PTFE BUSH

Diameter - O.D 12.5 X ID 6mm To 300X275mm (Standard)Length - 100mm (Standard)

Specific Length & Diameter available as per customer's Requirement



TURCITE SHEET & STRIP

Turcite know as various name like bearing liner /
trexonn etc. extensively used in mechanical
machine tool manufacturing industries.
specific size & thickness available as per customer
requirement.



PTFE MOULDED SHEETS

Size - 300mm² / 400mm² / 450mm Î 500mm² / 600mm² / 1500mm Î 1000mm² / 1200mm Î 1500mm Î Thickness - 1.5mm To 100mm (Standard)



PTFE BALL (VALVE SEALS - SEATS)

Ball Valve Seals. Stem Seals, Body Seats Etc., Available as per Customers Drawing & Specification in all PTFE Grades.



PTFE SKIVED SHEETS

Diameter - 300mm W / 450 mm / 600 mm 600 mm / 900 mm / 1000 mm Thickness - 0.5mm To 3.5mm (Standard) Specific Size & Thickness available as per customer's Requirements.



PTFE BELLOWS

Line Bellows, Expansion Bellows, Valve Bellows Special Bellows, Composite Bellows Available as per Customer Requirement in all PTFE Grades.



PTFE RING / WASHER / GASKET

Mfg. upto 600 Dia in all PTFE Grades Specific Size & Thickness available as per customer's Requirement.



PTFE DIMPLE SHEET(BRIDGE BARING PAD)

PTFE Dimple Sheet also know as PTFE Bridge Bearing Pad, mostly used in fastly growing infrastructural projects like metro Projects, Railway Bridges. Fly-Over etc., Also Mfg. as per customer's specifications and Drawings.



PTFE Machine Components

Mfg. up to 1200 Dia in all PTFE Grades Specific Size & Thickness available as per customer's Requirements.



PTFE Customize Components

We will manufacture PTFE components as per customer specification & Drawing & also designed & develop the products as per application. Milled & Ready Cut Gaskets.



PTFE BALL

Specific Size & Thickness available as per customer's Requirements.



PTFE -O - RINGS

Mfg. upto 1000 Dia all PTFE Grades specific Size & Thickness available as per customer's Requirements.