



## Technical Data Sheet PTFE

### Yazd polymer

property	PTFE virgin	PTEF 25% glass	PTFE 25% carbon	PTFE 60% bronze	method	unit
Specific gravity	2.15-2.20	2.23-2.26	2.05-2.12	3.90-3.98	ASTM D792	g/cm <sup>3</sup>
Flammability	VE-0	NC	NC	NC	UI94	%
Water absorption	0.01	-	-	-	ASTM D570	%
Tensile strength	20-30	13-18	13-18	17-22	ASTM D1457	N/mm <sup>2</sup>
Elongation at break	220-300	120-180	120-180	100-180	ASTM D1457	%
Compression strength 1% deformation	4.5	10	10	10-5	ASTM D695	N/mm <sup>2</sup>
Impact coefficient	1.5	-	-	-	ASTM D256	J/cm
Hardness (shore D – 15 sec)	50-60	62-66	62-66	65-70	ASTM D2240	Shore D
Coefficient of friction	0.05-0.09	0.1-0.2	0.1-0.2	0.07-0.2	ASTM D1894	-
Deformation under load (14 N/mm <sup>2</sup> . 24h at 23°C)	14.5	6-7	6-7	6-7	ASTM D621	%
Permanent deformation After 24h relaxation at 23°C	8.0	3-4	3-4	2-3	ASTM D695	%
Dielectric constant 50 HZ to 10 <sup>9</sup> Hz	2.1	-	-	-	ASTM D150	-
Dielectric strength	55	-	-	-	ASTM D149	KV/mm
Volume resistivity	10 <sup>18</sup>	10 <sup>4</sup>	10 <sup>4</sup>	-	ASTM D257	Ω/cm
Coefficient of liner expansion	16×10 <sup>-5</sup>	9.5×10 <sup>-5</sup>	9.5×10 <sup>-5</sup>	9.5×10 <sup>-5</sup>	ASTM D831	°C <sup>-1</sup>
Max. Continuous operating temp.	250-260	250-260	250-260	250-260	-	°C
Service temperature	-200- +260	-200- +260	-200- +260	-200- +260	-	°C
Thermal conductivity	0.23	0.64	0.64	0.74	ASTM D2214	W/mk