



# PTFE Technical Properties

	Properties	DIN or ASTM Standard	Unit	PTFE
<b>Physical</b>	Specific Gravity	53479	g/cc	2.14-2.19
	Maximum Working Temperature		°C	260
	Flame Rating		UL-94	94 V-0
	Water Absorption	53495	%	<0.01
<b>Mechanical</b>	Ultimate tensile strength at 23°C	53455		29-39
	Ultimate tensile strength at 150°C		Mpa	14-20
	Ultimate tensile strength at 250°C			n.kn.
	Yield point as 23°C	53455	N/mm <sup>2</sup>	10
	Elongation at break , at 23°C	53455	%	200-500
	Modulus of elasticity in tension at 23°C	53457	N/mm <sup>2</sup>	400-800
	Maximum bending stress at 23°	53452	Mpa	18-20
	Flexural Modulus	53457	N/mm <sup>2</sup>	600-800
	Ball Hardness 132-60	53456	N/mm <sup>2</sup>	25-30
	Rockwell Hardness R	ASTM-D-785		
	Shore Hardness D	53505		55-72
	Coefficient of friction (dry with steel)			0.05-0.20
	<b>Thermal</b>	Melting temperature	ASTM 2116	°C
Heat deflection temperature @ 18.5 Kp/sq.cm		53461	°C	50-60
Heat deflection temperature @ 4.6 Kp/sq.cm		ISO R 75	°C	130-140
Coefficient of expansion			1/K.10-5	10-16
Thermal conductivity at 23°C		52612	W/K.m	0.23
Specific heat at 23°C			Kj/Kg.K	1.01
Oxygen index			%	>95
<b>Electrical</b>	Relative permittivity at 10 (3) Hz	53483		2.0-2.1
	Relative permittivity at 10 (6) Hz			2.0-2.1
	Surface resistivity	ICE 93+167	Ohms	10 (17)
	Arc resistance	ASTM 495	sec	>360
	Dielectric strength	53481	KV/mm	40-80

IMPORTANT NOTE: The above data is intended as a guide and is taken from resin manufacturers data. Customers must evaluate the material under the relevant conditions if the properties are critical to their applications.