



FEP Technical Properties

	Properties	DIN or ASTM Standard	Unit	FEP
Physical	Specific Gravity	53479	g/cc	2.12-2.17
	Maximum Working Temperature		°C	205
	Flame Rating		UL-94	94 V-O
	Water Absorption	53495	%	<0.01
Mechanical	Ultimate tensile strength at 23°C	53455		19-25
	Ultimate tensile strength at 150°C		Mpa	4-6
	Ultimate tensile strength at 250°C			n.a.
	Yield point as 23°C	53455	N/mm ²	12
	Elongation at break , at 23°C	53455	%	250-350
	Modulus of elasticity in tension at 23°C	53457	N/mm ²	350-700
	Maximum bending stress at 23°	53452	Mpa	
	Flexural Modulus	53457	N/mm ²	660-680
	Ball Hardness 132-60	53456	N/mm ²	23-29
	Rockwell Hardness R	ASTM-D-785		
	Shore Hardness D	53505		55-60
	Coefficient of friction (dry with steel)			0.30-0.35
Thermal	Melting temperature	ASTM 2116	°C	253-282
	Heat deflection temperature @ 18.5 Kp/sq.cm	53461	°C	51
	Heat deflection temperature @ 4.6 Kp/sq.cm	ISO R 75	°C	70
	Coefficient of expansion		1/K.10-5	8-14
	Thermal conductivity at 23°C	52612	W/K.m	0.20
	Specific heat at 23°C		Kj/Kg.K	1.17
	Oxygen index		%	>95
Electrical	Relative permittivity at 10 (3) Hz	53483		2.1
	Relative permittivity at 10 (6) Hz			2.1
	Surface resistivity	ICE 93+167	Ohms	10 (16)
	Arc resistance	ASTM 495	sec	>300
	Dielectric strength	53481	KV/mm	50-80

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.