

BURST STRENGTH OF FEP

FEP Tube ความยาวมาตรฐาน 100เมตร/ม้วน

ITEM	ID(MM)	OD(MM)	Burst Pressure (Bar)				
			50 C	75 C	100 C	150 C	200 C
1	2.00	4.00	120.00	85.00	60.00	40.00	20.00
2	4.00	6.00	60.00	42.50	30.00	20.00	10.00
3	6.00	8.00	40.00	28.33	20.00	13.33	6.67
4	8.00	10.00	30.00	21.25	15.00	10.00	5.00
5	10.00	12.00	24.00	17.00	12.00	8.00	4.00
6	12.00	14.00	20.00	14.17	10.00	6.67	3.33
7	14.00	16.00	17.14	12.14	8.57	5.71	2.86
8	16.00	18.00	15.00	10.63	7.50	5.00	2.50
9	18.00	20.00	13.33	9.44	6.67	4.44	2.22

ASTM TEST METHOD

Properties of Fluoroplastics

Properties	ASTM Test method	PTFE	PFA	FEP
Physical properties				
Specific gravity	D792	2.15	2.15	2.15
Water absorption (%)	D570/24hrs 1/3"t	<0.00	0.03	<0.01
Mold shrinkage (cm/cm)		0.02 – 0.05	0.04	0.03 – 0.06
Contact angle (degree)	Angle to level	110	115	115
Thermal properties				
Thermal conductivity (cal/sec/cm ² , C/cm)	C177	6x10 ⁻⁴	6x10 ⁻⁴	6x10 ⁻⁴
Coefficient of linear	D696/23-60°C	10x10 ⁻⁵	12x10 ⁻⁵	8-10x10 ⁻⁵
Thermal expansion(1/°C)				
Melting point (°C)		327	302-310	270
Melt viscosity (poise)		10 ¹¹ -10 ¹³	10 ⁴ -10 ⁵	4x10 ⁴ -10 ⁵
		300-380°C	380°C	380°C
Maximum temp for		260/500	260/500	200/392
Continuous use (°C/°F)				
Electrical properties				
Dielectric constant	D150/10 ³ Hz	2.1	2.1	2.1
	D150/10 ⁶ Hz	2.1	2.1	2.1
Dielectric dissipation factor	D150/10 ³ Hz	<1x10 ⁻⁵	1x10 ⁻⁵	6x10 ⁻⁵
	D150/10 ⁶ Hz	2x10 ⁻⁵	3x10 ⁻⁵	5x10 ⁻⁵
Dielectric breakdown	D149/	480	500	500-600
Strength(V/mil)	Short time, 1/8 in			
Volume resistivity (ohm-cm)	D257	>10 ¹⁸	>10 ¹⁸	>10 ¹⁸
Chemical resistance		Excellent	Excellent	Excellent
Weather ability		Excellent	Excellent	Excellent
Combustibility (%)	D2863/Oxygen concentration index	>95	>95	>95