

Properties of Extruded Insulation Materials

Insulation Materials	FEP	PFA	ETFE	Elasthane™ 55D	Elasthane™ 80A
PROPERTY					
◆ Physical Properties					
Specific Gravity	2.15	2.15	1.7	1.16	1.12
Water Absorption (%)	0.01	0.03	0.02	-	-
◆ Thermal Properties					
Temperature Rating (° C) (Continuous Use)	200	260	150	-	-
Melting Point (° C)	271	310	271	180	180
◆ Mechanical Properties					
Tensile Strength 73° F (PSI)	3,000	4,000	7,000	8,000	5,800
Ultimate Elongation (%)	300	300	400	490	795
Compression Strength (kgf/cm ²)	60	60	109	40	23
Stiffness 73° F (PSI)	95,000	95,000	200,000	-	-
Hardness Durometer	D55	D60	D70	55D	85A
Abrasion Resistance (Instron, 0.005 Radius Blade, 0.2 in./min.)	4.5 kg.	4.5 kg.	16 kg.	-	-
Coefficient of Friction	0.27	0.25	0.23	-	-
◆ Electrical Properties					
Dielectric Constant	2.1	2.1	2.5	5.2	6.7
Dissipation Factor	.0003 - .0007	.0001 - .0003	.0017 - .0070	-	-
Dielectric Strength (v/mil)	600	600	400	385	363
Volume Resistivity (ohms/sq)	>10E+17	>10E+16	>10E+17	-	-
◆ Additional Properties					
Flame Rating (UL)	94 V - 0	94 V - 0	94 V - 0	-	-
Weather Resistance	Excellent	Excellent	Excellent	-	-
Chemical Resistance	Excellent	Excellent	Excellent	-	-
Radiation Resistance (Threshold in KGy)	<25	<10	<200	-	-