

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	0.006	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.006	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ASTM Data			
Tensile Strength	84	MPa	ASTM D 638
Compressive Modulus	1630	MPa	ASTM D 695
Compressive Strength	109	MPa	ASTM D 695
Flexural Modulus	2550	MPa	ASTM D 790
Flexural Strength	129	MPa	ASTM D 790
Rockwell Hardness	R 120	-	ASTM D 785
Taber Abrasion Resistance	20	mg/1000 cycles	ASTM D 1044
Izod Impact notched, 1/4 in	85	J/m	ASTM D 256
Izod Impact unnotched, 1/4 in	N	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ASTM Data			
UL 94 Flame rating	V-0	-	UL 94
Thickness tested	0.46	mm	-
Coefficient of Thermal Expansion, MD	55	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	57	E-6/K	ASTM D 696
DTUL @ 66 psi	210	°C	ASTM D 648
DTUL @ 264 psi	203	°C	ASTM D 648
Vicat Temperature	222	°C	ASTM D 1525
Thermal Conductivity, solid state	0.0259	W/(m K)	ASTM C 177
Limiting Oxygen Index	38	%	ASTM D 2863

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Dielectric Strength, Short Time	16	kV/mm	ASTM D 149
Dissipation Factor, 60 Hz	0.001	-	ASTM D 150
Dielectric Constant, 60 Hz	3.5	-	ASTM D 150
Volume Resistivity	>1E15	Ohm*cm	ASTM D 257
Arc Resistance	70	s	ASTM D 495

Other properties	Value	Unit	Test Standard
Water Absorption, 24hr	0.43	%	ASTM D 570
Density	1370	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	160 - 180	°C	-
Pre-drying - Time	5 - 24	h	-
Mold temperature	120 - 180	°C	-
Zone 1	320 - 340	°C	-
Zone 2	330 - 370	°C	-
Zone 3	340 - 390	°C	-
Nozzle temperature	340 - 390	°C	-
Screw speed	50 - 100	rpm	-
Injection pressure	120 - 200	MPa	-
Back pressure	5 - 20	MPa	-
Holding pressure	80 - 150	MPa	-

Characteristics

SUMIKAEXCEL® PES4800G

PESU

Sumitomo Chemical Co., Ltd.

Processing

Injection Molding, Other Extrusion

Features

Amorphous

Delivery form

Pellets

Regional Availability

North America, Europe, Asia Pacific

Special Characteristics

Heat stabilized or stable to heat