

DUPONT Delrin® 1700P

Ultra low viscosity Acetal Homopolymer
 Information provided by DuPont; Delrin was sold by DuPont in 2023.

Physical property		Standard	Value	Unit
Density		ASTM D792	1.42	g/cm ³
Water Absorption	50RH Equilibrium	ASTM D570	0.28	%
Water Absorption	24hr	ASTM D570	0.4	%
Water Absorption	Saturation	ASTM D570	1.4	%
Melt Index	190°C 1.05kg	ASTM D1238	17	g/10min
Mechanical behavior		Standard	Value	Unit
Tensile Modulus	5mm/min	ASTM D638	3560	MPa
Tensile Strength	Yield 5mm/min	ASTM D638	71	MPa
Elongation	Yield 5mm/min	ASTM D638	8	%
Elongation	Break 5mm/min	ASTM D638	15	%
Flexural Strength	5% Strain	ASTM D790	110	MPa
Flexural Modulus		ASTM D790	3380	MPa
Izod Notch Impact		ASTM D256	59	J/m
Thermal		Standard	Value	Unit
HDT	Unannealed 0.45MPa	ASTM D648	165	°C
HDT	Unannealed 1.8MPa	ASTM D648	103	°C
Melting Temperature		ASTM D3418	178	°C
CLE	Flow 23~55°C	ASTM E831	1.04E-4	cm/cm/°C
CLE	xFlow 23~55°C	ASTM E831	1.05E-4	cm/cm/°C
Electrical properties		Standard	Value	Unit
Volume Resistivity		ASTM D257	1E14	Ω.cm
Surface Resistivity		ASTM D257	6E+14	Ω
Dielectric Strength	3.2mm Short Time	ASTM D149	17	KV/mm
Dielectric Constant	1MHz	ASTM D150	3.7	
Dissipation Factor	1MHz	ASTM D150	0.005	
Flammability		Standard	Value	Unit
Flame Rating	All Color 0.75mm	UL94	HB	
Flame Rating	All Color 1.5mm	UL94	HB	
Flame Rating	All Color 3.0mm	UL94	HB	
UL		Standard	Value	Unit
UL FlameRating	ALL 0.75mm	UL94	HB	
UL FlameRating	ALL 1.5mm	UL94	HB	
UL FlameRating	ALL 3.0mm	UL94	HB	
HWI	ALL 0.75mm	UL 746A	4	PLC
HWI	ALL 1.5mm	UL 746A	4	PLC
HWI	ALL 3.0mm	UL 746A	3	PLC
HAI	ALL 0.75mm	UL 746A	0	PLC
HAI	ALL 1.5mm	UL 746A	0	PLC
HAI	ALL 3.0mm	UL 746A	0	PLC