

Ajedium™



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Ajedium™ Films

Typical Properties

**SPECIALTY
POLYMERS**

Typical Properties of Ajedium™ Films

	KetaSpire® KT-820 NT PEEK	AvaSpire® AV-630 NT PAEK	Radel® R-5100 NT15 PPSU	Veradel® A-201 NT PESU
Stress at yield [psi] – MD	11,000	10,400	9,860	10,300
Stress at break [psi] – MD	15,800	12,600	13,300	9,610
Tensile modulus [psi] – MD	297,000	296,000	231,000	304,000
Elongation at yield [%] – MD	6.8	5.0	9.2	7.7
Elongation at break [%] – MD	150	130	140	140
Water absorption, 24 hrs [%]	0.50	0.20	0.37	0.50
Specific gravity	1.30	1.30	1.30	1.37
Limiting oxygen index [%]	37	38	38	39.3
Dart impact [g] – (ASTM D1709 - Method B)	1306	Not tested	749	625
Tear propagation [g force] – MD (ASTM D1922)	320	247	144	115
Tear resistance [g force] – MD (ASTM D1004)	10.20	9.17	8.23	7.68
Dielectric breakdown voltage [V/mil]	3,800	5,100	4,900	4,600
Dielectric constant @ 1kHz	3.10	3.10	3.45	3.50
Volume resistivity [Ohm-cm]	2.6 x 10 ¹⁶	1.6 x 10 ¹⁴	9.0 x 10 ¹⁵	1.0 x 10 ¹⁷
Glass transition temperature [°C]	150	158	220	220
Melting point [°C]	340	340	N/A	N/A
Area factor [ft ² /lb/mil]	149	149	149	142
Natural color	Translucent	Translucent	Off white	Light amber
Film thickness tested [μ]	25	50	25	50
Film thickness tested [μ] (Impact properties)	50	–	50	50
Film thickness tested [μ] (Tear properties)	125	100	125	125

	Udel® P-1700 NT 11 PSU	Ultem® 1000-1000 PEI	Solef® 9009 PVDF	Halar® 500LC ECTFE
Stress at yield [psi] – MD	9,860	14,900	7,980	5,000
Stress at break [psi] – MD	8,460	16,500	8,270	7,690
Tensile modulus [psi] – MD	334,000	413,000	290,000	225,000
Elongation at yield [%] – MD	5.5	7.0	6.0	6.0
Elongation at break [%] – MD	53	99	200	280
Water absorption, 24 hrs [%]	0.30	0.20	<0.04	<0.1
Specific gravity	1.24	1.27	1.78	1.68
Limiting oxygen index [%]	26	47	44	52
Dart impact [g] – (ASTM D1709 - Method B)	571	<360	<360	605
Tear propagation [g force] – MD (ASTM D1922)	129	111	354	>6400
Tear resistance [g force] – MD (ASTM D1004)	7.50	10.70	9.08	5.72
Dielectric breakdown voltage [V/mil]	3,200	5,930	575	360
Dielectric constant @ 1kHz	3.04	3.15	7.50	2.57
Volume resistivity [Ohm-cm]	3.0 x 10 ¹⁶	1.0 x 10 ¹⁷	1.0 x 10 ¹⁴	5.5 x 10 ¹⁶
Glass transition temperature [°C]	190	217	–40	85
Melting point [°C]	N/A	N/A	165	242
Brittleness temperature [°C]	N/A	N/A	–10	<–76
Area factor [ft ² /lb/mil]	158	152	108	115
Natural color	Light amber	Orange amber	Translucent	Clear
Film thickness tested [μ]	30	30	25	50
Film thickness tested [μ] (Impact properties)	50	50	50	50
Film thickness tested [μ] (Tear properties)	125	125	125	125

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