Apec 2000

Standard grades / Base grade High-heat polycarbonate with Vicat temperature of 401°F

ISO Shortname

Property	Test Condition	Unit	Standard	Value
Rheological properties				
Melt flow rate	330 °C / 2.16 kg	g/(10 min)	ASTM D 1238	5
Mechanical properties (23 °C/50 % r.h.)				
Tensile modulus	1 mm/min	lb/in²	ASTM D 638	330000
Tensile stress at yield	-	lb/in²	ASTM D 638	9400
Tensile elongation at yield	-	%	ASTM D 638	7.0
Tensile elongation at break	-	%	ASTM D 638	> 50
Unnotched impact strength		ft·lb/in	ASTM D 4812	No Break
Unnotched impact strength	73 °F, 0.125 in	ft·lb/in	ASTM D 4812	No Break
Thermal properties				
Deflection temperature under load, Unannealed	264 psi; 0.250 in	°F	ASTM D 648	354
Vicat softening temperature	50 N, 120 °C/h	°F	ASTM D 1525	401
UL94 Flame Class	Thickness tested: 1.5 mm	Class	UL 94	HB
UL94 Flame Class	Thickness tested: 3.0 mm	Class	UL 94	HB
Oxygen index		%	ASTM D 2863	24
Electrical properties (23 °C/50 % r.h.)				
Dissipation factor, Tinfoil electrodes	60 Hz	-	ASTM D 150	0.001
Dissipation factor, Tinfoil electrodes	1 MHz	-	ASTM D 150	0.01
Volume resistivity, Tinfoil electrodes		Ohm·m	ASTM D 257	1.0 E14
Surface resistivity		Ohm	ASTM D 257	1.0 E+16
Dielectric strength	Short time under oil at 73 °F; 0.125 in	V/mil	ASTM D 149	> 400
Dielectric constant, Tinfoil electrodes	60 Hz	-	ASTM D 150	2.8
Dielectric constant, Tinfoil electrodes	1 MHz	-	ASTM D 150	2.8
Other properties (23 °C)				
Water absorption	73 °F; immersion to saturation	%	ASTM D 570	0.4
Water absorption	73 °F; immersion 24 h	%	ASTM D 570	0.2
Density		lb/in³	ASTM D 792	0.041
Specific gravity		-	ASTM D 792	1.14
Material specific properties				
Refractive index		-	ASTM D 542	1.565
Luminous transmittance (clear transparent materials)	0.125 in	%	ASTM D 1003	88
Haze for transparent materials	0.125 in	%	ASTM D 1003	1.0