

Celanese

POM

C 52021

Product information				
Manufacturer		Celanese Corporation		
Color		BK		
Material Shape		Pellets		
Process		Injection molding		
Polymer		Copolymer		
FR		HB		
Material Attribute		High heat resistance grade Hydrolysis stabilized grade Food Contact grade		
Features		High flowAlkali-resistingAntioxidantChemical ResistantFuel resistantSolvent ResistantLow processing temperatureRapid moldability		
Application		Thin wall productsPrecision molding applications		
Electrical properties	Condition	Standard	Value	Unit
CTI		IEC 60112	600	V
Dielectric	Strength	IEC 60243	35	KV/mm
Dielectric	Constant 100Hz	IEC 60250	4	
Dielectric	Constant 1MHz	IEC 60250	4	
Dissipation	Factor 100Hz	IEC 60250	0.003	
Dissipation	Factor 1MHz	IEC 60250	0.005	
Surface	Resistivity	IEC 60093	1E+14	Ω
Volume	Resistivity	IEC 60093	1E+12	Ω.m
Flammability	Condition	Standard	Value	Unit
Flame	Rating NC 0.81mm	UL94	HB	
Flame	Rating BK 1.5mm	UL94	HB	
Flame	Rating BK 3.0mm	UL94	HB	
Hardness	Condition	Standard	Value	Unit
Ball	Indentation Hardness 30s	ISO 2039	148	MPa
Mechanical behavior	Condition	Standard	Value	Unit
Charpy	Notch Impact 23°C 1eA	ISO 179	5	kJ/m ²
Charpy	Notch Impact -30°C 1eA	ISO 179	5	kJ/m ²
Charpy	Un-notch Impact 23°C	ISO 179	150	kJ/m ²
Charpy	Un-notch Impact -30°C	ISO 179	150	kJ/m ²
Elongation	Yield 50mm/min	ISO 527	7	%
Elongation	Break 50mm/min	ISO 527	15	%
Flexural	Modulus 23°C	ISO 178	2800	MPa
Tensile	Modulus	ISO 527	3000	MPa
Tensile	Strength Yield 50mm/min	ISO 527	65	MPa
Tensile	Creep Modulus 1hr	ISO 899	2500	MPa

Physical property	Condition	Standard	Value	Unit
Tensile	Creep Modulus 1000hr	ISO 899	1300	MPa
Density		ISO 1183	1410	kg/m ³
Humidity	Absorption 23°C 50RH	ISO 62	0.2	%
Melt	Index 190°C 2.16kg	ISO 1133	39	cm ³ /10min
Melt	Density	INTERNAL METHOD	1200	kg/m ³
Shrinkage	Flow	ISO 294	1.9	%
Shrinkage	xFlow	ISO 294	1.8	%
Water	Absorption 23°C Saturation	ISO 62	0.65	%
Thermal	Condition	Standard	Value	Unit
CLE	Flow	ISO 11359	1.1E-4	cm/cm/°C
HDT	1.8MPa	ISO 75	106	°C
Heat	Conductivity Coefficient Melt	INTERNAL METHOD	0.155	W/(m·K)
Melting	Temperature 10°C/min	ISO 11357	166	°C
Specific	Heat Melt	INTERNAL METHOD	2060	J/(kg·K)
Vicat	Softening Temperature 50°C/hr 50N	ISO 306	151	°C
UL	Condition	Standard	Value	Unit
Arc	Resistance	ASTM D495	5	PLC
Comparative	Tracking Index	IEC 60112	0	PLC
Dielectric	Strength	ASTM D149	40	KV/mm
Dimensional	Stability	UL746	0.0	%
HAI	BK 1.5mm	UL 746A	0	PLC
HAI	BK 3.0mm	UL 746A	0	PLC
HVTR		UL 746A	0	PLC
HWI	BK 1.5mm	UL 746A	4	PLC
HWI	BK 3.0mm	UL 746A	4	PLC
RTI	Elec NC 0.81mm	UL 746B	50	°C
RTI	Elec BK 1.5mm	UL 746B	105	°C
RTI	Elec BK 3.0mm	UL 746B	105	°C
RTI	Imp NC 0.81mm	UL 746B	50	°C
RTI	Imp BK 1.5mm	UL 746B	90	°C
RTI	Imp BK 3.0mm	UL 746B	90	°C
RTI	Str NC 0.81mm	UL 746B	50	°C
RTI	Str BK 1.5mm	UL 746B	90	°C
RTI	Str BK 3.0mm	UL 746B	90	°C
UL	FlameRating NC 0.81mm	UL94	HB	
UL	FlameRating BK 1.5mm	UL94	HB	
UL	FlameRating BK 3.0mm	UL94	HB	
Volume	Resistivity	ASTM D257	1E+11	Ω.cm