

DESCRIPTION

PC2200 resin is a high flow (MFR = 22 at 300°C/1.2kg), heat stabilized, polycarbonate product designed for use in the custom compounding market. It does not contain UV stabilizer or mold release. It is available exclusively at www.sabicpc.com.

TYPICAL PROPERTY VALUES

Revision 20210812

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	63	MP	ASTM
Tensile Strain, yld, Type I, 50 mm/min	6	a %	D638
Tensile Strain, brk, Type I, 50 mm/min	>70	%	ASTM
Tensile Modulus, 50 mm/min	2350	MP	D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	90	a	ASTM
Flexural Modulus, 1.3 mm/min, 50 mm span	2300	MP	D638
Hardness, Rockwell R	120	a	ASTM
Tensile Stress, yield, 50 mm/min	63	MP	D638
Tensile Strain, yield, 50 mm/min	6	a -	ASTM
Tensile Strain, break, 50 mm/min	>70	MP	D790
Tensile Modulus, 1 mm/min	2350	a %	ASTM
Flexural Stress, yield, 2 mm/min	90	%	D790
Flexural Modulus, 2 mm/min	2300	MP	ASTM
Hardness, Rockwell R	120	a	D785 ISO
IMPACT			
Izod Impact, unnotched, 23°C		a	ISO 527
Izod Impact, notched, 23°C	NB	J/m	ASTM
Instrumented Dart Impact Energy @ peak, 23°C	640	MP	ISO 527
Izod Impact, unnotched 80°10°3 +23°C	55	J/m	D4812
Izod Impact, unnotched 80°10°3 +23°C	NB	a -	ISO 527
Izod Impact, unnotched 80°10°3 -30°C		J	ASTM D256
Izod Impact, notched 80°10°3 +23°C	NB	kJ/m	ISO 178
Izod Impact, notched 80°10°3 +23°C	NB	ASTM	ISO 178
Izod Impact, notched 80°10°3 -30°C	65	2	D3763 ISO
Izod Impact, notched 80°10°3 -30°C	12	kJ/m	ISO 2039-2
THERMAL			
Vicat Softening Temp, Rate B/50		180/1U	ISO
HDT, 0.45 MPa, 3.2 mm	140	kJ/m	180/1A ISO
HDT, 1.82 MPa, 3.2 mm	133	°C	ASTM D1525
CTE, -40°C to 95°C, flow	122	°C	ASTM D648
Thermal Conductivity	7.E-05	1/°C	ASTM D648
Thermal Conductivity	0.2	°C	ASTM E831
CTE, 23°C to 80°C, flow	0.2	W/m-°C	ASTM C177
Ball Pressure Test, 125°C +/- 2°C	7.E-05	W/m-°C	ISO 8302
Vicat Softening Temp, Rate B/50	Passes	1/°C	ISO 11359-2
HDT/BI, 0.45 MPa Flatw 80°10°4 sp=64mm	140	-	IEC 60695-10-2
HDT/BI, 1.8 MPa Flatw 80°10°4 sp=64mm	133	°C	ISO 306
	122	°C	ISO 75/BI

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CHEMISTRY THAT MATTERS™

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL			
Specific Gravity	1.2	-	ASTM D792
Water Absorption, (23°C/Saturated) Mold	0.35	%	ASTM D570
Shrinkage on Tensile Bar, flow	0.5 - 0.7	%	SABIC
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.7	%	method
Melt Flow Rate, 300°C/1.2 kgf	22	g/10 min	SABIC
Density	1.2	g/cm ³	method
Water Absorption, (23°C/saturated)	0.35	%	ASTM D1238
Melt Volume Rate, MVR at 300°C/1.2 kg	21	cm ³ /10 min	ISO 1183
OPTICAL			
Light Transmission, 2.54 mm	88 - 90	%	ISO 1133
Haze, 2.54 mm	<0.8	%	ASTM D1003
Refractive Index	1.586	-	D1003
Refractive Index	1.586	-	ASTM D1003
ELECTRICAL			
Volume Resistivity	>1.E+15	Ω.cm	ASTM D542
Dielectric Strength, 1.6 mm	27	kV/mm	ASTM D257
Relative Permittivity, 60 Hz	3	m -	ASTM D149
Relative Permittivity, 1 MHz	3	-	ASTM D150
Dissipation Factor, 60 Hz	0.001	-	ASTM D150
Dissipation Factor, 1 MHz	0.01	-	ASTM D150
Volume Resistivity	>1.E+15	Ω.cm	ASTM D150
Dielectric Strength, 1.6 mm	27	kV/mm	IEC 60093
Relative Permittivity, 60 Hz	3	m -	IEC 60243-1
Relative Permittivity, 1 MHz	3	-	IEC 60250
Dissipation Factor, 60 Hz	0.001	-	IEC 60250
Dissipation Factor, 1 MHz	0.01	-	IEC 60250
FLAME CHARACTERISTICS			
UL Recognized, 94V-2 Flame Class Rating			
INJECTION MOLDING	1.5	mm	UL 94
Drying Temperature			
Drying Time	120	°C	
Maximum Moisture Content	2 - 4	Hr	
Melt Temperature	0.02	s	
Nozzle Temperature	280 - 300	%	
Front - Zone 3 Temperature	270 - 290	°C	
Middle - Zone 2 Temperature	280 - 300	°C	
Rear - Zone 1 Temperature	270 - 290	°C	
Hopper Temperature	260 - 280	°C	
Mold Temperature	60 - 80 80	°C	
	- 100	°C	
		°C	