

Product Texts

PC4800 resin is a very high flow (MFR = 8.0 at 250C/1.2kg) polycarbonate product designed for use in the optical media market. It is available exclusively at www.sabicpc.com.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	7	cm ³ /10min	ISO 1133
Temperature	250	°C	-
Load	1.2	kg	-
ASTM Data			
Melt Flow Index, MFI	8	g/10min	ASTM D 1238
Temperature	250	°C	-
Load	1.2	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2350	MPa	ISO 527
Yield stress	60	MPa	ISO 527
Yield strain	6	%	ISO 527
Strain at break	40	%	ISO 527
Flexural modulus	2300	MPa	ISO 178
ASTM Data			
Tensile Modulus	2350	MPa	ASTM D 638
Tensile Strength at Yield	60	MPa	ASTM D 638
Elongation at Yield	6	%	ASTM D 638
Elongation at Break	40	%	ASTM D 638
Flexural Modulus	2300	MPa	ASTM D 790

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	122	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	132	°C	ISO 75-1/-2
Vicat softening temperature, B	138	°C	ISO 306
Thermal Conductivity	0.2	W/(m K)	DIN 52616
ASTM Data			
DTUL @ 66 psi	132	°C	ASTM D 648
DTUL @ 264 psi	122	°C	ASTM D 648
Vicat Temperature	138	°C	ASTM D 1525
Thermal Conductivity, solid state	0.0288	W/(m K)	ASTM C 177

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	3	-	IEC 62631-2-1
Dissipation factor, 1MHz	100	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1

Optical properties	Value	Unit	Test Standard
ASTM Data			
Haze	0.7	%	ASTM D 1003
Light Transmittance	90	%	ASTM D 1003
Index of Refraction	1.59	-	ASTM D 542

Other properties	Value	Unit	Test Standard
Water absorption	0.35	%	Sim. to ISO 62
Density	1200	kg/m ³	ISO 1183
Water Absorption, Equilibrium	0.35	%	ASTM D 570
Density	1200	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	≤120	°C	-
Pre-drying - Time	4 - 6	h	-
Melt temperature	340 - 370	°C	-
Mold temperature	75 - 95	°C	-
Zone 1	270 - 290	°C	-
Zone 2	320 - 340	°C	-
Zone 3	350 - 380	°C	-
Nozzle temperature	340 - 370	°C	-