SABIC® PC Resin PC5800 - Asia

PC | Saudi Basic Industries Corporation (SABIC)

Product Texts

PC5800 resin is a very high flow (MFR = 8.9 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	**8**	cm³/10min	ISO 1133
Temperature	**250**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**8.9**	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/m³	ISO 1183
Water Absorption, Equilibrium	**0.35**	%	ASTM D 570
Density	**1200**	kg/m³	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	-