

Technical Data Sheet

Network Polymers Pc Flake (PC-1500)

Polycarbonate
LyondellBasell Industries
Engineering Plastics

Product Description

Linear, high flow polycarbonate homopolymer resin

General

Appearance • Natural Color

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.20	1.20 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 Kg)	25 g/10 min	25 g/10 min	ASTM D1238
Water Absorption			ASTM D570
24 Hr, 73°F (23°C)	0.25 %	0.25 %	
Equilibrium, 73°F (23°C)	0.35 %	0.35 %	
Equilibrium, 212°F (100°C)	0.58 %	0.58 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ¹			ASTM D638
Yield, 73°F (23°C)	8990 psi	62.0 MPa	
Break, 73°F (23°C)	9430 psi	65.0 MPa	
Tensile Strain ² (Break, 73°F (23°C))	> 70 %	> 70 %	ASTM D638
Flexural Modulus ³			ASTM D790
73°F (23°C), 1.97 In (50.0 Mm) Span	334000 psi	2300 MPa	
Flexural Strength ³			ASTM D790
Yield, 73°F (23°C), 1.97 In (50.0 Mm) Span	13500 psi	93.0 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	12 ft-lb/in	640 J/m	ASTM D256A
Unnotched Izod Impact (73°F (23°C))	No Break	No Break	ASTM D4812
Instrumented Dart Impact (73°F (23°C), Peak)	478 in-lb	54.0 J	ASTM D3763
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 Psi (0.45 Mpa), Unannealed, 0.252 In (6.40 Mm)	279 °F	137 °C	
264 Psi (1.8 Mpa), Unannealed, 0.252 In (6.40 Mm)	259 °F	126 °C	
Vicat Softening Temperature	280 °F	138 °C	ASTM D1525 ⁴
CLTE - Flow (-40 To 203°F (-40 To 95°C))	3.8E-5 in/in/°F	6.8E-5 cm/cm/°C	ASTM E831
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Light Transmittance (100.0 Mil (2540 µm))	88.0 %	88.0 %	ASTM D1003
Haze (100.0 Mil (2540 µm))	1.00 %	1.00 %	ASTM D1003

Notes

¹ Type I, 2.0 in/min (50 mm/min)

² Type 1, 2.0 in/min (50 mm/min)

³ 0.051 in/min (1.3 mm/min)

⁴ Rate B (120°C/h), Loading 2 (50 N)

Notes

These are typical property values not to be construed as specification limits.