

Technical Data Sheet



Network Polymers Pc Flake (PC-1500)

Polycarbonate
LyondellBasell Industries
Engineering Plastics

Product Description

Linear, high flow polycarbonate homopolymer resin

General

Material Status	• Commercial: Active
Availability	• North America
Appearance	• Natural Color

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.20	1.20 g/cm ³	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.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

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Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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