

Technical Data Sheet

**Diamaloy Engineered Alloys PCPBT 530**

Polycarbonate + PBT
LyondellBasell Industries
Engineering Plastics

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• UV Stabilizer
Features	• Good Weather Resistance

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.22	1.22 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) ¹ (265°C/5.0 kg)	30 g/10 min	30 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ² (Yield)	9000 psi	62.1 MPa	ASTM D638
Flexural Modulus ³	355000 psi	2450 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (0.125 in (3.18 mm))	14 ft·lb/in	750 J/m	ASTM D256A
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	215 °F	102 °C	ASTM D648
Vicat Softening Temperature	272 °F	133 °C	ASTM D1525 ⁴

Technical Data Sheet



Diamaloy Engineered Alloys PCPBT 530

Polycarbonate + PBT
LyondellBasell Industries
Engineering Plastics



Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature - Desiccant Dryer	220 to 230 °F	104 to 110 °C
Drying Time - Desiccant Dryer	4.0 to 6.0 hr	4.0 to 6.0 hr
Dew Point - Desiccant Dryer	< -20 °F	< -29 °C
Suggested Shot Size	60 to 80 %	60 to 80 %
Rear Temperature	470 to 510 °F	243 to 266 °C
Middle Temperature	490 to 530 °F	254 to 277 °C
Front Temperature	500 to 540 °F	260 to 282 °C
Nozzle Temperature	500 to 550 °F	260 to 288 °C
Processing (Melt) Temp	500 to 550 °F	260 to 288 °C
Mold Temperature	130 to 180 °F	54 to 82 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Holding Pressure	50.0 to 75.0 psi	0.345 to 0.517 MPa
Back Pressure	80.0 to 150 psi	0.552 to 1.03 MPa
Screw Speed	50 to 75 rpm	50 to 75 rpm
Clamp Tonnage	3.0 to 5.0 tons/in ²	4.1 to 6.9 kN/cm ²
Cushion	0.100 to 0.300 in	2.54 to 7.62 mm

Technical Data Sheet

**Diamaloy Engineered Alloys PCPBT 530**

Polycarbonate + PBT
LyondellBasell Industries
Engineering Plastics

Notes

- ¹ Procedure A
- ² Type I, 2.0 in/min (51 mm/min)
- ³ Method I (3 point load), 0.050 in/min (1.3 mm/min)
- ⁴ Rate B (120°C/h), Loading 1 (10 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.

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/>.

© LyondellBasell Industries Holdings, B.V. 2024

Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.