

Technical Data Sheet

Diamaloy Engineered Alloys PCPBT 530

Polycarbonate + PBT
 LyondellBasell Industries
 Engineering Plastics

General

Additive	• UV Stabilizer
Features	• Good Weather Resistance

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
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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
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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
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Notched Izod Impact (0.125 In (3.18 Mm))	14 ft·lb/in	750 J/m	ASTM D256A
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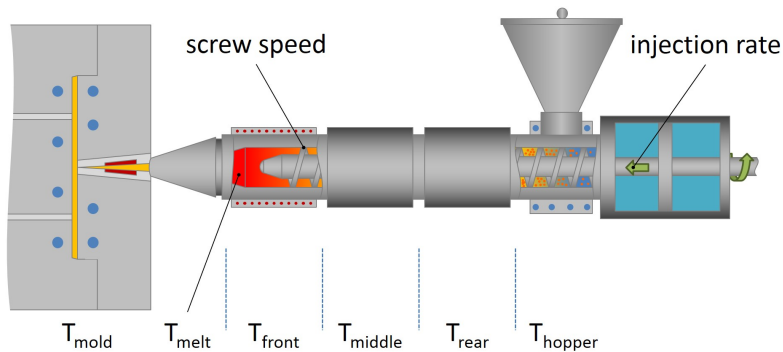
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
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Deflection Temperature Under Load			ASTM D648
264 Psi (1.8 Mpa), Unannealed, 0.125 In (3.18 Mm)	215 °F	102 °C	
Vicat Softening Temperature	272 °F	133 °C	ASTM D1525 ⁴

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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

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)