Technical Data Sheet

Diamaloy Engineered Alloys PC/PBT 627

Polycarbonate + PBT
LyondellBasell Industries
Engineering Plastics

General	
Forms	• Pellets

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.24	1.24 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) [1] (260°c/5.0 Kg)	25 g/10 min	25 g/10 min	ASTM D1238
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength [2] (Yield)	6800 psi	46.9 MPa	ASTM D638
Tensile Elongation (Break)	< 100 %	< 100 %	ASTM D638
Flexural Modulus [3]	290000 psi	2000 MPa	ASTM D790B
Flexural Strength [3] (Yield)	11000 psi	75.8 MPa	ASTM D790B
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact (0.125 In (3.18 Mm))	15 ft·lb/in	800 J/m	ASTM D256A
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 Psi (1.8 Mpa), Unannealed, 0.125 In (3.18 Mm)	188 °F	86.7 °C	

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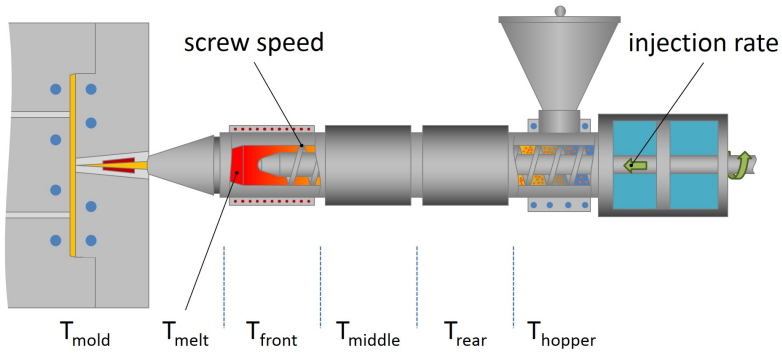

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature - Desiccant Dryer	250 °F	121 °C
Drying Time - Desiccant Dryer	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	< 0.01 %	< 0.01 %
Rear Temperature	470 to 510 °F	243 to 266 °C
Middle Temperature	490 to 530 °F	254 to 277 °C
Front Temperature	500 to 540 °F	260 to 282 °C
Nozzle Temperature	480 to 530 °F	249 to 277 °C
Melt Temperature (Aim)	520 °F	271 °C
Mold Temperature	130 to 180 °F	54 to 82 °C
Injection Pressure	8000 to 14000 psi	55.2 to 96.5 MPa
Injection Rate	Moderate-Fast	Moderate-Fast
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/in²	4.1 to 6.9 kN/cm²
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)