

NatureWorks® 6202D

NatureWorks® PLA polymer 6202D is a thermoplastic fiber-grade resin derived primarily from annually renewable resources. Available in pellet form, 6202D is designed for extrusion into mechanically drawn staple fibers using conventional fiber spinning and drawing equipment. NatureWorks® PLA 6202D can be converted into a broad range of fiber products and is recommended for non-dyed fiber applications. Potential applications for PLA polymer 6202D include: Fiberfill; Non-wovens; Agricultural woven and nonwoven fabrics; Articles for household disposal

Physical Properties	Metric	English	Comments
Specific Gravity	1.24 g/cc	1.24 g/cc	ASTM D792
Melt Density	1.08 g/cc @Temperature 230 °C	0.0390 lb/in ³ @Temperature 446 °F	ASTM D1238
Viscosity Measurement	3.1	3.1	Relative Viscosity; CD Internal Viscotek Method

Melt Flow	15 - 30 g/10 min @Load 2.16 kg, Temperature 210 °C	15 - 30 g/10 min @Load 4.76 lb, Temperature 410 °F	ASTM D1238
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Mechanical Properties	Metric	English	Comments
Elongation at Break	10 - 70 %	10 - 70 %	Fiber; ASTM D2256/ASTM D3822

Tenacity	0.221 - 0.441 N/tex	2.50 - 5.00 g/denier	ASTM D2256/ASTM D3822
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Thermal Properties	Metric	English	Comments
Melting Point	160 - 170 °C	320 - 338 °F	ASTM D3418

Glass Transition Temp, T _g	55.0 - 60.0 °C	131 - 140 °F	ASTM D3417
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Shrinkage	<= 8.0 % @Temperature 130 °C, Time 600 sec	<= 8.0 % @Temperature 266 °F, Time 0.167 hour	Hot Air; ASTM D2102
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Processing Properties	Metric	English	Comments
Drying Temperature	80.0 °C @Time 14400 sec	176 °F @Time 4.00 hour	

Dew Point	-35.0 °C	-31.0 °F	
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Drying Air Flow Rate	>= 14.2 l/min	>= 0.500 ft ³ /min (CFM)	
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