

NatureWorks® 6060D

NatureWorks® PLA polymer 6060D is an amorphous thermoplastic fiber-grade resin derived primarily from annually renewable resources. Available in pellet form, 6060D is designed for extrusion into mechanically drawn staple fibers using conventional fiber spinning and drawing equipment. NatureWorks® PLA 6060D can be used as a low melt binder polymer in a sheath-core configuration.

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/in³ @Temperature 446 °F	ASTM D1238
Viscosity Measurement	3.3	3.3	Relative Viscosity; CD Internal Viscotek Method

Melt Flow	10 g/10 min @Load 2.16 kg, Temperature 210 °C	10 g/10 min @Load 4.76 lb, Temperature 410 °F	ASTM D1238
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Mechanical Properties	Metric	English	Comments
Elongation at Break	50 %	50 %	Fiber; ASTM D2256/ASTM D3822

Tenacity	0.309 N/tex	3.50 g/denier	ASTM D2256/ASTM D3822
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Thermal Properties	Metric	English	Comments
Melting Point	125 - 135 °C	257 - 275 °F	ASTM D3418

Glass Transition Temp, Tg	55.0 - 60.0 °C	131 - 140 °F	ASTM D3417
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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 ft³/min (CFM)	
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