

NatureWorks® 6752D

Sheath polymer for spunbound uses. NatureWorks® PLA polymer 6752D, a NatureWorks LLC product, is a thermoplastic fiber-grade resin de-rived from annually renewable resources. Available in pellet form, 6752D is designed for extrusion into mechanically drawn staple fibers using conventional fiber spinning and drawing equipment.

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	15 g/10 min @Load 2.16 kg, Temperature 210 °C	15 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 - 0.353 N/tex	2.50 - 4.00 g/denier	ASTM D2256/ASTM D3822
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Thermal Properties	Metric	English	Comments
Melting Point	150 - 160 °C	302 - 320 °F	ASTM D3418

Glass Transition Temp, Tg	55.0 - 60.0 °C	131 - 140 °F	ASTM D3417
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Shrinkage	<= 8.0 % @Temperature 120 °C, Time 600 sec	<= 8.0 % @Temperature 248 °F, Time 0.167 hour	Hot Air; ASTM D2102
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Processing Properties	Metric	English	Comments
Drying Temperature	80.0 - 100 °C	176 - 212 °F	

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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