

NatureWorks® 4060D

PLA (polylactide) polymer 4060D can be coextruded with other PLA resin to form a sealant layer for biaxially oriented PLA film. This resin has excellent heat seal and hot tack performance with a seal initiation temperature of 80°C. This sealant does not adversely affect the unique properties of NatureWorks® PLA bioriented film such as high gloss and transparency, dead-fold or aroma and grease barrier.

Physical Properties	Metric	English	Comments
Specific Gravity	1.24 g/cc	1.24 g/cc	ASTM D1505

Mechanical Properties	Metric	English	Comments
Heat Seal Strength Initiation Temperature	80.0 °C	176 °F	ASTM F88

Thermal Properties	Metric	English	Comments
Glass Transition Temp, Tg	52.0 - 58.0 °C	126 - 136 °F	ASTM D3417

Optical Properties	Metric	English	Comments
Haze	2.0 %	2.0 %	ASTM D1003
Gloss	90 %	90 %	20°; ASTM D1003

Processing Properties	Metric	English	Comments
Feed Temperature	180 °C	356 °F	
Adapter Temperature	200 °C	392 °F	
Die Temperature	190 °C	374 °F	
Melt Temperature	210 °C	410 °F	
Drying Temperature	45.0 °C @Time 14400 sec	113 °F @Time 4.00 hour	
Moisture Content	<= 0.025 %	<= 0.025 %	
Dew Point	-35.0 °C	-31.0 °F	
Drying Air Flow Rate	>= 14.2 l/min	>= 0.500 ft³/min (CFM)	
Screw Speed	20 - 100 rpm	20 - 100 rpm	