HiTerra® PLA 2003 3DP

Techmer Polymer Modifiers - *Polylactic Acid*

Product Description
HiTerra® PLA 2003 3DP is a specially formulated and compounded thermoplastic material designed for general purpose additive manufacturing applications. This product has been optimized for maximum printability in additive manufacturing.

General	
Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Natural Fiber
Features	• Renewable Resource Content
Processing Method	• 3D Printing

Properties [1]

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ASTM D638
-- [2]	480000	psi	
-- [3]	350000	psi	
-- [4]	820000	psi	
Tensile Strength			ASTM D638
Yield [2]	4100	psi	
Yield [3]	2350	psi	
Yield [4]	8100	psi	
Tensile Elongation			ASTM D638
Break [2]	1.5	%	
Break [3]	0.90	%	
Break [4]	2.0	%	
Flexural Modulus [4]	770000	psi	ASTM D790
Flexural Strength [4]	13500	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact [4]	0.50	ft·lb/in	ASTM D256

Processing Information

Extrusion	Nominal Value	Unit
Drying Temperature	160	°F
Drying Time	4.0 to 5.0	hr
Cylinder Zone 1 Temp.	320 to 350	°F
Cylinder Zone 2 Temp.	340 to 360	°F
Cylinder Zone 3 Temp.	340 to 360	°F
Cylinder Zone 4 Temp.	340 to 380	°F
Melt Temperature	320 to 380	°F
Die Temperature	320 to 380	°F

Extrusion Notes
If material is to remain in dryer for more than 6 hours in dried state, reduce dryer temperature to 110°F to prevent degradation of material.