taulman3D
High Strength Materials

Nylon 645

1	Manufacture Part ID	tau51/tau53
	HS Code	3916.9
	Thermal	
2	Printing Temperature	250C-255C
	Melting Temperature	217C
3	Tg Glass transition	52C
4	Pyrolysis - Thermal degradation	340C
	Non-Destructive Evaluation	Yes
5	Print-Bed Temp	30-65C
6	Ambient Temp (Enclosure)	30 - 100C
	Physical	
	Nominal Diameter (3mm Maximum Dia)	1.75mm/2.85mm
	Weight /spool	1 lb
	Nominal Length/spool (In Feet)	490/180
7	Shrinkage - in/in	0.0062
8	Solvent/Glue	ComPlete
9	**Mechanical**	
	Tensile Stress "PSI" when 3D Printed	5,188
	Ultimate Elongation when 3D Printed	186%
	Modulus "PSI" when 3D Printed	30,845
	Optical	
	Opacity	45%
	Reflectivity	N/A
10	Color	Natural
	Approvals	
	FDA - Direct Food Contact	None
	FDA Direct Drink Contact	None
	UL Flammability	
	UL 94 HB	Yes
	UL 94 V2 at 1.5 mm thickness	Yes
	Features:	
	Surface texture	Very good
11	Living Hinge	Very good
	Use of Taps for threads	Excellent
	CNC finish tooling	Any
12	CNC Coolant	Forced Air Only
	Use in 3D Forging	Excellent
	Printed Prosthesis	Excellent
	Robotic Assemblies	Excellent
	Jewelry Printing	N/A
	Fumes	None
	Lenticulated overlays.	N/A
	Dye type	Acid Based
	Dye Uptake (Saturation)	Very good
	Specifications are subject to change.	