

iq.ul.com

Plastics for Additive Manufacturing

E497657

Guide Information

Process Category: Powder Bed Fusion

HP Inc

1501 Page Mill Rd, Palo Alto CA 94304

HP 3D HR PA12(#)

Polyamide 12 (PA12), furnished as powder for use with Multi Jet Fusion Technologies

<u>Color</u>	<u>Min. Thk</u> <u>(mm)</u>	<u>Flame</u> <u>Class</u>	<u>HWI</u>	<u>HAI</u>	<u>RTI</u> <u>Elec</u>	<u>RTI</u> <u>Imp</u>	<u>RTI</u> <u>Str</u>
BK	0.75	HB	-	-	65	65	65
	1.5	HB	-	-	65	65	65
	3.0	HB	-	-	65	65	65

Comparative Tracking Index (CTI): -

Dielectric Strength (kV/mm): 2.8

High-Voltage Arc Tracking Rate (HVTR): -

Dimensional Stability (%): -

Inclined Plane Tracking (IPT) kV: -

Volume Resistivity (10^x ohm-cm): 14

High Volt, Low Current Arc Resis (D495): -

Processing Parameters: (Printer Preset: Balanced)

Printing Process Designation Number:

Build Plane: Horizontal

Laser Power (Watts): -

Layer Thickness (µm): -

Scan Speed (m/s): -

Hatch Spacing (mm): -

Scan Strategy: -

Post Processing Method: Bead blasting: Glass beads, 70-150 µm or Ceramics beads, 150-250 µm with 3-5 bars Air Pressure. For 5-10 sec each 100cm² with 15 cm distance to part.

For use with UL Listed (a) HP Jet Fusion 3D 3200 Printer Series, HP Jet Fusion 3D 4200 Printer Series, HP Jet Fusion 3D 4210 Printer printer: Series. (HP Printing and Computing Solutions S L U - E165854)

Limited properties and ratings assigned to samples produced by the Additive Manufacturing technique representing a specific set of printing parameters and build strategy. Other print parameters and build strategies may result in significantly different results.

- For use with Fusing and Detailing agents HP 3D600, HP 3D700 and HP 3D710

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date: 2018-02-13

Last Revised: 2018-04-13

© 2018 UL LLC



IEC and ISO Test Methods				
Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.75	HB75 (BK)
			1.5	HB75 (BK)
			3.0	HB40 (BK)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	°C	0.75	775
			1.5	700
			3.0	700
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	°C	0.75	800
			1.5	725
			3.0	725
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	°C	-	172
ISO Heat Deflection (1.80 MPa)	ISO 75-2	°C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m ²	-	-
ISO Izod Impact	ISO 180	kJ/m ²	-	-
ISO Charpy Impact	ISO 179-2	kJ/m ²	-	-