

HP 3D High Reusability PA 11

Multi Jet Fusion | PA11 | powder

Compiled by FabDigit from manufacturer technical data. Values below belong to this named product; unreported properties are omitted.

Manufacturer: HP

Source revision: HP materials page, 2026

Recorded system family: HP Jet Fusion 5200, 5000 and 4200 series

As-printed colour: Gray

Test values are typical reported results, not guaranteed design allowables or finished-part certification. Review the complete source for specimen preparation, orientation and conditioning.

Physical

PROPERTY	VALUE	TEST / CONDITION
Density	1.05 g/cm3	per ASTM D792
Melting Temperature (Tm)	202 deg C	per ASTM D3418; Powder melting point (DSC)

Mechanical

PROPERTY	VALUE	TEST / CONDITION
Tensile Strength (Ultimate)	52 MPa	per ASTM D638; XY/XZ/YX/YZ 52 / ZX/ZY 52
Elastic (Young's) Modulus	1.8 GPa	per ASTM D638; XY/XZ/YX/YZ 1.8 / ZX/ZY 1.8 GPa
Elongation at Break	50 %	per ASTM D638; XY/XZ/YX/YZ 50 / ZX/ZY 35
Flexural Strength	70 MPa	per ASTM D790; All orientations 70
Flexural Modulus	1.8 GPa	per ASTM D790; All orientations 1.8 GPa

Mechanical - continued

PROPERTY	VALUE	TEST / CONDITION
Charpy Impact, Notched (ISO 179)	5 kJ/m2	per ASTM D256; Izod notched, kJ/m2; XY/XZ/YX/YZ 5 / ZX/ZY 4.5
Hardness, Shore D	80 Shore D	per ASTM D2240; All orientations 80

Thermal

PROPERTY	VALUE	TEST / CONDITION
Heat Deflection Temp. @ 0.45 MPa	185 deg C	per ASTM D648; All orientations 185
Heat Deflection Temp. @ 1.8 MPa	54 deg C	per ASTM D648; All orientations 54

Manufacturability

PROPERTY	VALUE	TEST / CONDITION
Powder Particle Size (D50)	54 um	per ASTM D3451
Powder Bulk Density	0.48 g/cm3	per ASTM D1895

Selection and finishing

First-generation HP MJF PA11 for ductile parts, snaps and impact-prone geometry on the Jet Fusion 5200 workflow.

Design: Use the exact printer generation in the drawing and qualification plan. Prototype cyclic flexing and impact geometry in the expected conditioned state.

Finishing: Gray is the as-printed colour. Treat dyeing as a separate operation and verify that the chosen finish does not compromise a flexible feature or contact requirement.

Source and document scope

HP manufacturer source reference - HP materials page, 2026

<https://www.hp.com/us-en/printers/3d-printers/materials.html>

FabDigit product page: <https://www.fabdigit.com/materials/polymer-pa11/hp-pa-11/>

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