

# HP Jet Fusion 5200 Series 3D Printing Solutions



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# **HP Jet Fusion 5200 Series 3D Printing Solutions**

### Unleash new growth and scale production with HP's most advanced plastics 3D printing solution

Ideal for mid-volume production environments

#### Learn more at hp.com/go/3DPrinter5200



### Manufacturing predictability

- Get guality—from fine detail and sharp edges to textures—and optimal vield at industrial-level OEE.
- Produce functional parts with bestin-class isotropy.
- Maximize your equipment uptime, with redundant components, preventive maintenance and support, and HP productivity services.



## **Breakthrough economics**

• Uniquely predictable and

Streamlined workflow and

HP's most economical

type of part.

consistent print time for any

continuous 3D printing with automated materials mixing, enclosed processing station, and natural cooling unit.

Best-in-class economics and productivity—ideal for production environments.



# **Expand into new** applications and markets

- Address more final part applications with new levels of repeatable accuracy and best-in-class economics. • Produce applications with flexible, elastomeric
- properties with TPU material.<sup>1</sup>
- today, and more in the future.<sup>2</sup>
- reusability.<sup>2</sup>



#### **Software solutions** HP 3D Process Control HP 3D Center HP SmartStream 3D Build Manager Integration with industry-leading software partners hieve dimensional accuracy and AUTODESK' eatability that rivals industrial materialise NETFABB<sup>®</sup> Track, manage, and optimize your 3D ooling—faster. Quickly and easily prepare your jobs for perations with software that provides mote, real-time monitoring; preventive rinting with all the elements you need. Materialise Build Processor for Autodesk<sup>®</sup> Netfabb<sup>®</sup> with HP Workspace xibility and agility—without timenotifications; and historical data analysis. HP Multi Jet Fusion technology Vd labor-intensive injection molding ne-tuning steps.

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- Deliver a breadth of applications for various markets with HP 3D High Reusability PA 11 and PA 12 materials
- Address sustainability, with lower carbon footprint parts,<sup>3</sup> and HP 3D materials offering industry-leading









Siemens NX AM for HP Multi Jet Fusion technoloav

### New materials and applications new growth opportunities

Expand into new applications and markets with a growing portfolio of HP 3D materials that enable you to produce a variety of low-cost, quality parts—and address sustainability objectives with industry-leading reusability.<sup>2</sup>

#### HP 3D High Reusability PA 11 ductile,<sup>4</sup> quality parts

Produce functional parts with impact resistance and ductility.<sup>4</sup> This thermoplastic material, made from renewable sources,<sup>5</sup> provides optimal mechanical properties and consistent performance at industry-leading surplus powder reusability.<sup>2</sup>

Certifications: Biocompatability,<sup>6</sup> REACH, RoHS (for EU, Bosnia-Herzegovina, China, India, Japan, Jordan, Korea, Serbia, Singapore, Turkey, Ukraine, Vietnam), PAHs, Statement of Composition for Toy Applications



### HP 3D High Reusability PA 12 strong, low cost,<sup>7</sup> quality parts

Reduce total cost of ownership<sup>8</sup> and produce strong, functional, detailed complex parts with HP 3D High Reusability PA 12, a robust thermoplastic that enables industry-leading surplus powder reusability.<sup>2</sup>

Certifications: Biocompatability,<sup>6</sup> REACH, RoHS (for EU, Bosnia-Herzegovina, China, India, Japan, Jordan, Korea, Serbia, Singapore, Turkey, Ukraine, Vietnam), PAHs, Statement of Composition for Toy Applications, UL 94 and UL 746A Certification

### HP 3D Printing materials portfolio selection guide

Usage and properties	HP 3D HR PA11	HP 3D HR PA12
Visual aids & presentation models	•	•
Functional prototyping	•	•
End-use parts	•	•
Dimensional stability	•	•
Functional rigid part (higher stiffness)	•	•
Ductile part (higher elongation at break)	•	•
Impact	•	•
HDT (heat deflection temperature)	•	•
Medical biocompatibility <sup>6</sup> (USP Class I-VI and US FDA guidance for Intact Skin Surface Devices)	•	•
Look and feel	•	•
Powder reusability ratio for stable performance/total cost of ownership (TCO)	•	•



### **HP** recommended post-processing solutions

#### Girbau DY130 Dyeing Solution<sup>9</sup>

With 50 years of experience designing industrial equipment and in the dyeing equipment industry, Girbau offers a post-processing solution for dye finishing made for HP Jet Fusion 5200 Series 3D Printing Solutions.<sup>9</sup>

#### BASF Ultrasint<sup>™</sup> 3D TPU01 flexible, functional parts

Produce applications with flexible, elastomeric properties with this multipurpose TPU material\* that achieves part accuracy with a balanced property profile.

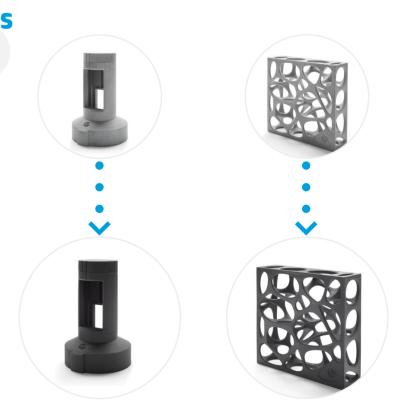
\* TPU material expected general availability end 2019.



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#### For more information. visit: hp.com/go/3Dmaterials



For more information, visit: coloringsystem.girbau.com

### Maximize your equipment uptime with HP Jet Fusion 3D Solution Services

Whether you're looking to meet today's needs or tomorrow's dreams, let HP help you get the most out of your 3D printing experience with a range of support offerings including foundational care and lifecycle support, training opportunities, and productivity services that bring ideas to life and speed your journey to full digital manufacturing.





Care Services

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HP 3D Printing Lifecycle Services





HP 3D Printing **Training Services** 

**HP Digital Manufacturing Productivity Services** 

Explore new opportunities to scale production and accelerate growth with expert guidance and support from HP Jet Fusion 3D Solution Services. Maximize uptime, enhance operator knowledge and skill sets through training, and work with HP's productivity experts to achieve your digital manufacturing objectives. Gain expedited access to HP's experts for fast troubleshooting and return to full operating condition in the shortest possible timeframe.

- Set your business up for success with HP Digital Manufacturing Productivity Services that evaluate site readiness and provide best practices for production ramp up.
- You're in control with **HP 3D Printing Training Services** that help your staff improve part design, print quality and yield, troubleshooting, and performance.
- Rely on HP experts to perform installations, upgrades, relocations, and more with HP 3D Printing Lifecycle Services, so you can focus on your core business.
- Leverage remote and onsite support options through HP 3D Printing Care Services. Return your equipment to full operating condition faster with optional four-hour response.



Learn more at hp.com/go/3DPrinter5200

### Accelerate your move to **HP 3D Printing with HP Financial Services**

Leverage the latest technology to help accelerate your growth, profitability, and competitiveness.

Partner with HP Financial Services to help accelerate your time to value. Enjoy the flexibility to meet both your technology and financial plans while allocating your cash to other priorities.

Financing options include a low per-month payment for the HP Jet Fusion 5200 Series 3D Printing Solutions, enabling the flexibility to:

- Avoid a large up-front payment
- Align payments with revenue by using deferred or step payment options
- Simplify your administration: bundle hardware and services into a single agreement
- Change as your requirements evolve, refresh every 3–5 years

For more information, contact your HP or HP Financial Services representative

Learn more at financialservices hp.com/go/t hp.com/qo/3DPrinter5200

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Financing and service offerings available through Hewlett-Packard Financial Services Company and its subsidiaries and affiliates (collectively HPFSC) in certain countries and is subject to credit approval and execution of standard HPFSC documentation. Rates and terms are based on customer's credit rating, offering types, services and/or equipment type and options. Not all customers may qualify. Not all services or offers are available in all countries. Other restrictions may apply. HPFSC reserves the right to change or cancel this program at any time without notice

## **Technical** specifications

#### HP Jet Fusion 5200 Series 3D Printers

Printer performance	Technology Effective building	HP Multi Jet Fusion technology	Features	Automated mixing and loading with ultrasonic sieving and accessible sieve mesh; semi-manual unpacking; high-temperature unpacking; automated external storage tank; optional trained self-service deep-cleaning; optional			
	volume	(15 x 11.2 x 15 in)	 Dimensions	cooling unit			
	Building speed <sup>10</sup>	Up to 5058 cm³/hr (309 in³/hr)		Processing station	2990 x 934 x 2400 mm		
	Layer thickness	0.08 mm (0.003 in)	(w x d x h)		(117.7 x 36.8 x 94.5 in)		
	Job processing resolution (x, y)	1200 dpi	-	Shipping	2389 x 1176 x 2182 mm (94 x 46.3 x 85.9 in)		
Dimensions	Print resolution (x, y) Printer	1200 dpi 2210 x 1268 x 1804 mm	-	Operating area	3190 x 2434 x 2500 mm (125.6 x 95.8 x 99 in)		
(w x d x h)	Phillei	(87 x 50 x 71 in)	Weight	Processing station	485 kg (1069 lb)		
	Shipping	2300 x 1325 x 2027 mm	-	Loaded	724 kg (1596 lb)		
		(91 x 52 x 80 in)		Shipping	620 kg (1366 lb)		
	Operating area	3700 x 3700 x 2500 mm (146 x 146 x 99 in)	Power	Consumption	2.6 kW (typical)		
Weight	Printer	880 kg (1940 lb)	-	Requirements	Input voltage single pase 200-240 V (line-to-line) 19 A max, 50/60 Hz		
	Build Unit	140.5 kg (309.7 lb)	-		(line-to-neutral) 14 A max, 50 Hz		
	Shipping	1037.5 kg (2287 lb)	Certification	Safety	UL 2011, UL508A, NFPA 70 / NFPA 79,		
Network <sup>11</sup>	Gigabit Ethernet (10/	100/1000Base-T), supporting the TCP/IP, DHCP (IPv4 only), TLS/SSL	-	C22.2 NO. 14-13 compliant; U and Canada (UL listed); EU (ME EN 60204-1, EN 12100-1, EN			
Processor and memory	Processor	Intel® Core™ i7 7770 (3.6 GHz, up to 4.2 GHz)			EN-ISO 11201 and EN 1010)		
unumentory	Memory	32 GB DDR4	-	Electromagnetic	Compliant with Class A requirements,		
Hard disk	1TB HDD SED (AES-2		-		including: USA (FCC rules), Canada (ICES), EU (EMC Directive), Australia (ACMA), New		
nai u uisk			-		Zealand (RSM), Korea (KCC)		
Collegen		56 encrypted), TGC-OPAL 2.01 compliant	-	Environmental	REACH		
Software	HP 3D Process Control, HP 3D Center, HP SmartStream 3D Build Manager, HP SmartStream 3D Command Center		Warranty	One-year limited hardware warranty			
	Supported file formats	3MF, STL, OBJ, and VRML (v2.0)	& service coverage included				
	Certified third-party software	Autodesk <sup>®</sup> Netfabb <sup>®</sup> with HP Workspace, Materialise Build Processor for HP Multi Jet Fusion technology, Siemens NX AM for HP Multi Jet Fusion technology					
Power	Consumption	12 kw <sup>12</sup>	_				
	Requirements	380-415 V (line-to-line), 50 A max, 50/60 Hz 200-240 V (line-to-line), 80 A max, 50/60 Hz					
Certification .	Safety	IEC 60950-1+A1+A2 compliant; United States and Canada (UL listed); EU (LVD and MD compliant, EN 60950-1, EN 12100-1, EN 60204-1, and EN 1010)		Dynamic security enabled printer. Only intended to be used with cartridges usin			
	Electromagnetic	Compliant with Class A requirements, including: USA (FCC rules), Canada (ICES), EU (EMC Directive), Australia (ACMA), New Zealand (RSM), Korea (KCC)	an HP original chip. Cartridges using a non-HP chip may not work, and those t work today may not work in the future. More at: <u>hp.com/go/learnaboutsupp</u>				
	Environmental	REACH	-				
Warranty & service coverage	One-year limited hard	dware warranty	-	For more information, please visit: hp.com/go/3DPrinter5200			
included					hp.com/go/3DPrin		



#### **HP Jet Fusion 5200 Series 3D Processing Stations**

Connect with an HP 3D Printing expert or sign up for the latest news about HP Jet **Fusion 3D Printing:** hp.com/go/3Dcontactus



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### **Ordering information**

Printer	3FW25A	HP Jet Fusion 5200 3D Printer	Original HP printheads	F9K08A	HP 3D600 Printhead
Accessories	3FW27A	HP Jet Fusion 5200 3D Processing Station	Original HP agents	V1Q63A	HP 3D700 5L Fusing Agent
	3FW29A	HP Jet Fusion 5200 3D Build Unit		V1Q64A	HP 3D700 5L Detailing Agent
	4QG11A	HP Jet Fusion 5200 3D Automatic External Tank Starter Kit	Other supplies	V1Q66A	HP 3D600 Cleaning Roll
	MOP54B	HP Jet Fusion 5200/4200 Series 3D External Tank 5-units Bundle	Original HP 3D high reusability materials <sup>14</sup>	V1R10A	HP 3D High Reusability PA 12 30L (13 kg)
				V1R16A	HP 3D High Reusability PA 12 300L (130 kg)
	5ZR21A	HP Jet Fusion 5200 3D Semaphore		V1R34A	HP 3D High Reusability PA 12 Production Material 300L (130 kg) <sup>15</sup>
	4QG10A	HP Jet Fusion 5200 3D Natural Cooling Unit			
	5ZR22A	HP Jet Fusion 5200 3D Natural Cooling Unit Starter Kit		V1R20A	HP 3D High Reusability PA 12 1400L (600 kg) <sup>13, 16, 17</sup>
	5ZR19A	HP Jet Fusion 5210 3D Printer Installation Kit		V1R12A	HP 3D High Reusability PA 11 30L (14 kg)
	5ZR23A	HP Jet Fusion 5210 Pro 3D Printer Installation Kit		V1R18A	HP 3D High Reusability PA 11 300L (140 kg)
	5ZR20A	HP Jet Fusion 5210 3D Processing Station Installation Kit		V1R36A	HP 3D High Reusability PA 11 Production Material 300L (140 kg) <sup>15</sup>
	5ZR24A	HP Jet Fusion 5210 Pro 3D Processing Station Installation Kit		V1R24A	HP 3D High Reusability PA 11 1700L (750 kg) <sup>13,16,17,18</sup>
	3WL35A	HP Jet Fusion 5200/4200 Series 3D Material Unloading Kit <sup>13</sup>	Materials Certified	BASF Ultrasint™ 3D TPU01 <sup>1</sup> Please consult with your local HP 3D Printing Specialist	
	3FW24A	HP Jet Fusion 5200/4200 Series 3D Material Loading 3-units Bundle <sup>13</sup>	for HP Jet Fusion 3D Printing		
	UB8N4E	HP Long Term Consumable Cleaning Kit Service for HP Jet Fusion 5200 Series 3D	HP Jet Fusion 3D Solution Services	UB6Y0E	HP Ready-to-print Service for HP Jet Fusion 5200 Series 3D Printing Solution
	HP OfficeJet Pro 7740	Processing Station/Build Unit For more information on availability in your		UB8N0E	HP Long Term Consumable Initial Maintenance Kit Service for HP Jet Fusion 5200 Series 3D
	Wide Format All-in- One Printer	region, please check with your local HP 3D Printing Specialist		UB8N1E	Printer HP Long Term Consumable Initial Maintenance Kit Service for HP Jet Fusion 5200 Series 3D Processing Station
Recommended third- party accessories	Hovmand Forklift 5200	Please consult with your local HP 3D Printing Specialist			
	Girbau DY130 Dyeing Solution <sup>9</sup>	Please consult with your local HP 3D Printing Specialist		UB9V8E	HP 3 year NBD* Onsite HW Support w/ DMR** Production Care for HP Jet Fusion 5200 3D Printer
				UB9X6E	HP 3 year NBD* Onsite HW Support Production Care for HP Jet Fusion 5200 3D Build Unit

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**Eco Highlights** 

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- HP 3D powders and agents are not classified as health hazards<sup>19</sup>
- Cleaner, more comfortable experience—enclosed printing system, and automatic powder management<sup>19</sup>
- Minimizes waste due to industry-leading reusability of powder
- Take-back program for printheads<sup>24</sup>

Find out more about HP sustainable solutions at hp.com/ecosolutions

\* Next Business Dav \*\* Defective Media Retention

HP 3 year NBD\* Onsite HW Support Production

Care for HP Jet Fusion 5200 3D Processing

HP Digital Manufacturing Site Readiness

Assessment Tier 1 Service

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- TPU material expected general availability end 2019. Industry-leading surplus powder reusability based on using HP 3D High Reusability PA 11 and PA 12 at recommended packing densities and compared to selective laser sintering (SLS) technology, offers excellent reusability without sacrificing mechanical performance Tested according to ASTM D638, ASTM D256, ASTM D790, and ASTM D648 and using a 3D scanner. Testing monitored using statistica process controls.
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- 5.
- Tested according to ASTM D638, ASTM D256, ASTM D790, and ASTM D648 and using a 3D scanner. Testing monitored using statistical process controls. Low carbon footprint per printed HP Multi Jet Fusion part for runs of 1500 or Jess when compared to injection molded parts. Data comes from an ISO 14040/44 compliant and peer reviewed LCA study. Testing according to ASTM D638, ASTM D256, and ASTM D648 using HDT at different loads with a 3D scanner for dimensional accuracy. Testing monitored using statistical process controls. HP 3D High Reusability PA 11 powdre is made with 100% renewable carbon content derived from castor plants grown without GMOs in arid areas that do not compete with food crops. HP 3D High Reusability PA 11 is made using renewable sources, and may be made together with certain non-renewable sources. A renewable resource is a natural organic resource that can be renewed at the same speed in which it is consumed. Renewable stands for the number of carbon atoms in the chain coming from renewable sources (in this case, castor seeds) according to ASTM D6866. Based on HP internal testing, June 2017, HP 3D600/3D700/3D710 Fusing and Detailing Agents. HP 3D High Reusability PA 11 powder, and HP 3D High Reusability PA 12 powder meet USP Class I-VI and US FDAs guidance for Intact Skin Surface Devices. Tested according to USP Class I-VI inducity, and sensitization. It is the responsibility of the customer to determine that its use of the fixing and detailing agents and by owder is after and technically suitable to the intended applications and consistent with the relevant regulatory englatory suitable to the intended applications and consistent with the relevant regulatory requirements finduding FDA requirements) applicable to the customer's final product. For more information, see <u>hp. com/go/biocompatibilitycertificate/PA11</u> and <u>hp.com/go/biocompatibilitycertificate/PA12</u>. Based on they reusability PA 11 powder is and dustor so dustoms on market as of April, 2016. Cost analysis based on standard solutio 6
- 7 8.

addition, HP Multi Jet Fusion technology uses less heating power than SLS systems for better material properties and material reuse

Station

- addition, HP Multi Jet Fusion technology uses less heating power than SLS systems for better material properties and material reuse rates, minimizing waste.
  This product is only available in Europe and in the Americas. HP does not design, manufacture or sell the Girbau product or provide any warranty for the Girbau products. HP believes that the information herein is correct based on the current state of scientific knowledge and as the date of its publication, however, to the maximum extent permitted by law HP EXPRESSLD IOLAMS ANY ERPRESENTATIONS AND WARRANTES OF ANY KIND, WHETHE EXPRESS OF MINLED, AS TO THE ACCURACING COMPLETENESS, NON-INFENIGEMENT, MERCHANTABILITY VAND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF HP IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMENTOR PROVIDED. Except to the exact that exclusion is prevented by law, HP shall not be liable for technical or editorial errors or omissions, and damages or losses of any kind or nature that result from the use of or reliance upon thy of Girbau products with HP LEA SUST 3D 2000 (2004).
  LB. ased on using HP 30 High Reusability PA 11 and PA 12 in Balanced print mode.
  LB. Ased on using HP 30 High Reusability PA 11 and PA 12 in Balanced print mode.
  LB. Arerge power for HP 3D High Reusability PA 11 and PA 12 in Balanced print mode.
  LB. Compared to manual print retrieval process used by other powder-based technologies. The term "cleaner" does not refer to any indoor or irequisitors.
  Chonly compatible with the HP Jet Fusion S210 Pro3/S210 30 Printing Solution.
  Additional material management equipment is required.
  Expected availability second half of 2019.
  Compared to manual print retrieval process used by other powder-based technologies. The term "cleaner" does not refer to any indoor air quality requirements and/or consiste related air quality reguirations (CG 1272/2020 B as amended.
  Comparent to manual print retrieval process used by other powder-based

UB7R3E

UB4P2E

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