

# HP Jet Fusion 5200 Series 3D Printing Solutions



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

Ideal for mid-volume production environments producing over 200 parts per week<sup>1</sup>

Learn more at [hp.com/go/3DPrinter5200](http://hp.com/go/3DPrinter5200)



### Manufacturing predictability

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



### Breakthrough economics



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

- Uniquely predictable and consistent print time for any type of part.
- Streamlined workflow and HP's most economical continuous 3D printing with automated materials mixing, enclosed processing station, and natural cooling unit.






### 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>2</sup>
- Deliver a breadth of applications for various markets with HP 3D High Reusability PA 11 and PA 12 materials today, and more in the future.<sup>3</sup>
- Address sustainability, with lower carbon footprint parts,<sup>4</sup> and HP 3D materials offering industry-leading reusability.<sup>3</sup>



## Software solutions

HP 3D Process Control	HP 3D Center	HP SmartStream 3D Build Manager	Integration with industry-leading software partners		
<ul style="list-style-type: none"> <li>✓ Achieve dimensional accuracy and repeatability that rivals industrial tooling—faster.</li> <li>✓ Flexibility and agility—without time- and labor-intensive injection molding fine-tuning steps.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Track, manage, and optimize your 3D operations with software that provides remote, real-time monitoring; preventive notifications; and historical data analysis.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Quickly and easily prepare your jobs for printing with all the elements you need.</li> </ul>	 <p>Autodesk® Netfabb® with HP Workspace</p>	 <p>Materialise Build Processor for HP Multi Jet Fusion technology</p>	 <p>Siemens NX AM for HP Multi Jet Fusion technology</p>



# 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>3</sup>

## HP 3D High Reusability PA 11— ductile,<sup>5</sup> quality parts

Produce functional parts with impact resistance and ductility.<sup>5</sup> This thermoplastic material, made from renewable sources,<sup>6</sup> provides optimal mechanical properties and consistent performance at industry-leading surplus powder reusability.<sup>3</sup>

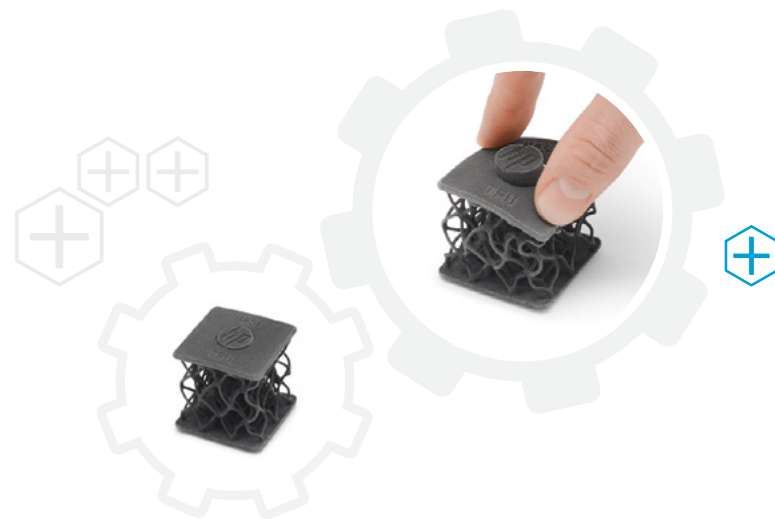
**Certifications:** Biocompatibility,<sup>7</sup> REACH, RoHS (for EU, Bosnia-Herzegovina, China, India, Japan, Jordan, Korea, Serbia, Singapore, Turkey, Ukraine, Vietnam), PAHs, Statement of Composition for Toy Applications



## HP 3D High Reusability PA 12— strong, low cost,<sup>8</sup> quality parts

Reduce total cost of ownership<sup>9</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>3</sup>

**Certifications:** Biocompatibility,<sup>7</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



## BASF Ultrasint™ 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.

## 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>7</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)	●	●

● Excellent

● Good

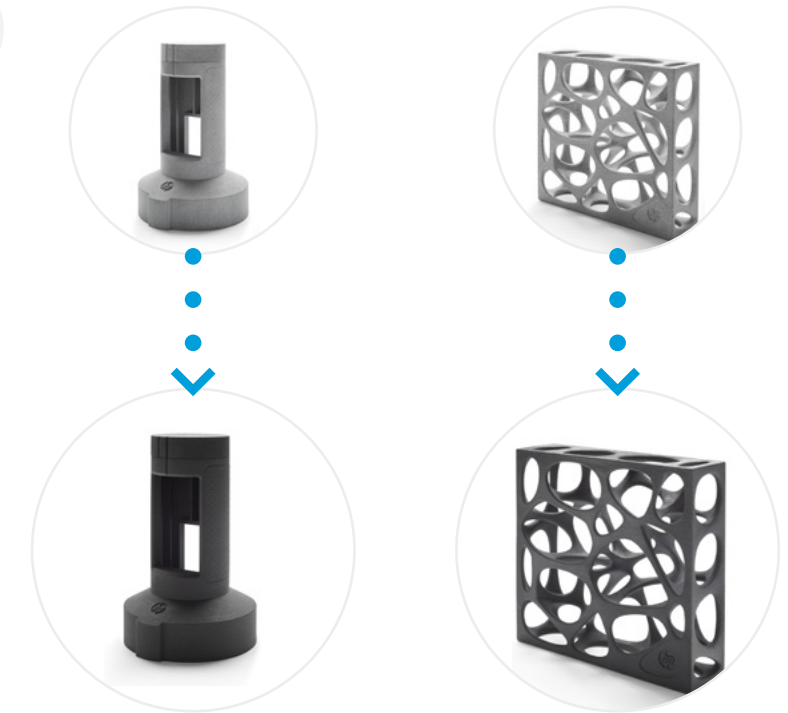
● Fair

For more information, visit:  
[hp.com/go/3Dmaterials](http://hp.com/go/3Dmaterials)

## HP recommended post-processing solutions

### Girbau DY130 Dyeing Solution<sup>10</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>10</sup>



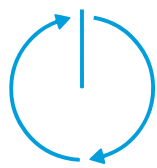
For more information, visit:  
[coloringsystem.girbau.com](http://coloringsystem.girbau.com)

# 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.



HP 3D Printing Care Services



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](http://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 [hp.com/go/hpfinancialservices](http://hp.com/go/hpfinancialservices)  
[hp.com/go/3DPrinter5200](http://hp.com/go/3DPrinter5200)

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# Technical specifications

## HP Jet Fusion 5200 Series 3D Printers

<b>Printer performance</b>	Technology	HP Multi Jet Fusion technology
	Effective building volume	380 x 284 x 380 mm (15 x 11.2 x 15 in)
	Building speed <sup>11</sup>	Up to 5058 cm <sup>3</sup> /hr (309 in <sup>3</sup> /hr)
	Layer thickness	0.08 mm (0.003 in)
	Print resolution (x, y)	1200 dpi
<b>Dimensions (w x d x h)</b>	Printer	2210 x 1268 x 1804 mm (87 x 50 x 71 in)
	Shipping	2300 x 1325 x 2027 mm (91 x 52 x 80 in)
	Operating area	3700 x 3700 x 2500 mm (146 x 146 x 99 in)
<b>Weight</b>	Printer	880 kg (1940 lb)
	Build Unit	140.5 kg (309.7 lb)
	Shipping	1037.5 kg (2287 lb)
<b>Network<sup>12</sup></b>	Gigabit Ethernet (10/100/1000Base-T), supporting the following standards: TCP/IP, DHCP (IPv4 only), TLS/SSL	
<b>Hard disk</b>	1 TB HDD SED (AES-256 encrypted)	
	1 TB SSD SED (AES-256 encrypted), TGC-OPAL 2.01 compliant	
<b>Software</b>	HP 3D Process Control, HP 3D Center, HP SmartStream 3D Build Manager, HP SmartStream 3D Command Center	
	Supported file formats	3MF, STL, OBJ, and VRML (v2.0)
	Certified third-party software	Autodesk® Netfabb® with HP Workspace, Materialise Build Processor for HP Multi Jet Fusion technology, Siemens NX AM for HP Multi Jet Fusion technology
<b>Power</b>	Consumption	12 kw <sup>13</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
<b>Certification</b>	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)
	Electromagnetic	Compliant with Class A requirements, including: USA (FCC rules), Canada (ICES), EU (EMC Directive), Australia (ACMA), New Zealand (RSM), Korea (KCC)
	Environmental	REACH
<b>Warranty &amp; service coverage included</b>	One-year limited hardware warranty	

Dynamic security enabled printer. Only intended to be used with cartridges using an HP original chip. Cartridges using a non-HP chip may not work, and those that work today may not work in the future. More at: [hp.com/go/learnaboutsplies](http://hp.com/go/learnaboutsplies).

## HP Jet Fusion 5200 Series 3D Processing Stations

<b>Features</b>	Automated mixing, sieving, and loading; semi-manual unpacking; automated external storage tank	
<b>Dimensions (w x d x h)</b>	Processing station	2990 x 934 x 2400 mm (117.7 x 36.8 x 94.5 in)
	Shipping	2389 x 1176 x 2182 mm (94 x 46.3 x 85.9 in)
	Operating area	3190 x 2434 x 2500 mm (125.6 x 95.8 x 99 in)
<b>Weight</b>	Processing station	485 kg (1069 lb)
	Loaded	724 kg (1596 lb)
	Shipping	620 kg (1366 lb)
<b>Power</b>	Consumption	2.6 kW (typical)
	Requirements	Input voltage single phase 200-240 V (line-to-line) 19 A max, 50/60 Hz (line-to-neutral) 14 A max, 50 Hz
<b>Certification</b>	Safety	UL 2011, UL508A, NFPA 70 / NFPA 79, C22.2 NO. 14-13 compliant; United States and Canada (UL listed); EU (MD compliant, EN 60204-1, EN 12100-1, EN 1127-1, EN-ISO 11201 and EN 1010)
	Electromagnetic	Compliant with Class A requirements, including: USA (FCC rules), Canada (ICES), EU (EMC Directive), Australia (ACMA), New Zealand (RSM), Korea (KCC)
	Environmental	REACH
<b>Warranty &amp; service coverage included</b>	One-year limited hardware warranty	

For more information, please visit:

[hp.com/go/3DPrinter5200](http://hp.com/go/3DPrinter5200)

[hp.com/go/3DPrint](http://hp.com/go/3DPrint)

Connect with an HP 3D Printing expert or sign up for the latest news about HP Jet Fusion 3D Printing:

[hp.com/go/3Dcontactus](http://hp.com/go/3Dcontactus)



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TSI-100802-2014-1



# Ordering information

<b>Printer</b>	3FW25A	HP Jet Fusion 5200 3D Printer
<b>Accessories</b>	3FW27A	HP Jet Fusion 5200 3D Processing Station
	3FW29A	HP Jet Fusion 5200 3D Build Unit
	4QG11A	HP Jet Fusion 5200 3D Automatic External Tank Starter Kit
	MOP54B	HP Jet Fusion 5200/4200 Series 3D External Tank 5-units Bundle
	5ZR21A	HP Jet Fusion 5200 3D Semaphore
	4QG10A	HP Jet Fusion 5200 3D Natural Cooling Unit
	5ZR22A	HP Jet Fusion 5200 3D Natural Cooling Unit Starter Kit
	5ZR19A	HP Jet Fusion 5210 3D Printer Installation Kit
	5ZR23A	HP Jet Fusion 5210 Pro 3D Printer Installation Kit
	5ZR20A	HP Jet Fusion 5210 3D Processing Station Installation Kit
	5ZR24A	HP Jet Fusion 5210 Pro 3D Processing Station Installation Kit
	3WL35A	HP Jet Fusion 5200/4200 Series 3D Material Unloading Kit <sup>14</sup>
	3FW24A	HP Jet Fusion 5200/4200 Series 3D Material Loading 3-units Bundle <sup>14</sup>
	UB8N4E	HP Long Term Consumable Cleaning Kit Service for HP JF 5200 Series 3D Processing Station/Build Unit
<b>Recommended 3<sup>rd</sup> party accessories</b>	Hovmand Forklift 5200	Please consult with your local HP 3D Printing Specialist
	Girbau DY130 Dyeing Solution <sup>10</sup>	Please consult with your local HP 3D Printing Specialist

HP OfficeJet Pro 7740 Wide Format All-in-One Printer For more information on availability in your region, please check with your local HP 3D Printing Specialist

## Eco Highlights



- 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<sup>3</sup>
- Take-back program for printheads<sup>20</sup>

Find out more about HP sustainable solutions at [hp.com/ecosolutions](http://hp.com/ecosolutions)

1. Part is 30 cm<sup>3</sup> part at a 10% packing density using HP 3D High Reusability PA 12 material, and up to 80% powder reusability ratio.  
 2. TPU material expected general availability end 2019.  
 3. 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 statistical process controls.  
 4. Low carbon footprint per printed HP Multi Jet Fusion part for runs of 1500 or less when compared to injection molded parts. Data comes from an ISO 14040/44 compliant and peer reviewed LCA study.  
 5. 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.  
 6. HP 3D High Reusability PA 11 powder 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.  
 7. 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 FDA's guidance for Intact Skin Surface Devices. Tested according to USP Class I-VI including irritation, acute systemic toxicity, and implantation; cytotoxicity per ISO 10993-5; Biological evaluation of medical devices—part 5: Tests for in vitro cytotoxicity; and sensitization per ISO 10993-10; Biological evaluation of medical devices—Part 10: Tests for irritation and skin sensitization. It is the responsibility of the customer to determine that its use of the fusing and detailing agents and powder is safe and technically suitable to the intended applications and consistent with the relevant regulatory requirements (including FDA requirements) applicable to the customer's final product. For more information, see [hp.com/go/biocompatibilitycertificate/PA11](http://hp.com/go/biocompatibilitycertificate/PA11) and [hp.com/go/biocompatibilitycertificate/PA12](http://hp.com/go/biocompatibilitycertificate/PA12).  
 8. Based on internal testing and public data for solutions on market as of April, 2016. Cost analysis based on: standard solution configuration price, supplies price, and maintenance costs recommended by manufacturer. Cost criteria: printing 1.4 full build chambers of parts per day/5 days per week over 1 year of 30 cm<sup>3</sup> parts at 10% packing density on Fast print mode using HP 3D High Reusability PA 12 material, and the powder reusability ratio recommended by manufacturer, and printing under certain build conditions and part geometries.  
 9. Compared to selective laser sintering (SLS) and fused deposition modeling (FDM) technologies, HP Multi Jet Fusion technology can reduce the overall energy requirements needed to attain full fusing and reduce the system requirements for large, vacuum-sealed ovens. In

<b>Original HP printheads</b>	F9K08A	HP 3D600 Printhead
<b>Original HP agents</b>	V1Q63A	HP 3D700 5L Fusing Agent
	V1Q64A	HP 3D700 5L Detailing Agent
<b>Other supplies</b>	V1Q66A	HP 3D600 Cleaning Roll
<b>Original HP 3D high reusability materials<sup>15</sup></b>	V1R10A	HP 3D High Reusability PA 12 30L (13 kg)
	V1R16A	HP 3D High Reusability PA 12 300L (130 kg)
	V1R34A	HP 3D High Reusability PA 12 300L (130 kg) <sup>16</sup>
	V1R20A	HP 3D High Reusability PA 12 1400L (600 kg) <sup>17</sup>
	V1R12A	HP 3D High Reusability PA 11 30L (14 kg)
	V1R18A	HP 3D High Reusability PA 11 300L (140 kg)
	V1R36A	HP 3D High Reusability PA 11 300L (140 kg) <sup>16</sup>
	V1R24A	HP 3D High Reusability PA 11 1700 (750 kg) <sup>17,18</sup>
<b>Materials Certified for HP Jet Fusion 3D Printing</b>	BASF Ultrasint™ 3D TPU01 <sup>2</sup> Please consult with your local HP 3D Printing Specialist	
<b>HP Jet Fusion 3D Solution Services</b>	UB6Y0E	HP Ready-to-print Service for HP Jet Fusion 5200 Series 3D Printing Solution
	UB8N0E	HP Long Term Consumable Initial Maintenance Kit Service for HP Jet Fusion 5200 Series 3D Printer
	UB8N1E	HP Long Term Consumable Initial Maintenance Kit Service for HP Jet Fusion 5200 Series 3D Processing Station
	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
	UB7R3E	HP 3 year NBD* Onsite HW Support Production Care for HP Jet Fusion 5200 3D Processing Station
	UB4P2E	HP Digital Manufacturing Site Readiness Assessment Tier 1 Service

\* Next Business Day  
 \*\* Defective Media Retention

addition, HP Multi Jet Fusion technology uses less heating power than SLS systems for better material properties and material reuse rates, minimizing waste.  
 10. 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 EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF HP IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION PROVIDED. Except to the extent 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 this information, which is subject to change without notice. Recipients of the Girbau product are responsible for determining the suitability of Girbau products with HP Jet Fusion 3D products, ensuring compliance with applicable laws and regulations, and being aware that other safety or performance considerations may arise when using, handling or storing the product.  
 11. Based on using HP 3D High Reusability PA 12, 0.11-mm (0.0043-in) layer thickness and 8.45 sec/layer.  
 12. The HP Jet Fusion 3D Printing Solution should be connected to the HP Cloud in order to enable the correct functioning of the printer and to offer better support.  
 13. Average power for HP 3D High Reusability PA 11 and PA 12 in Balanced print mode.  
 14. This product number is sold directly by HP.  
 15. Liters refers to the materials container size and not the actual materials volume. Materials are measured in kilograms.  
 16. Only compatible with the HP Jet Fusion 5210 Pro/5210 3D Printing Solutions.  
 17. Only compatible with the HP Jet Fusion 5210 Pro 3D Printing Solution.  
 18. Expected availability second half of 2019.  
 19. 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 consider related air quality regulations or testing that may be applicable. The HP powder and agents do not meet the criteria for classification as hazardous according to GHS and Regulation (EC) 1272/2008 as amended.  
 20. Printing supplies eligible for recycling vary by printer. Visit [hp.com/recycle](http://hp.com/recycle) to see how to participate and for HP Planet Partners program availability; program may not be available in your area. Where this program is not available, and for other consumables not included in the program, consult your local waste authorities on appropriate disposal.

