Materials

Metal | Polymer | Ceramic | Composite | Wood

Additive Manufacturing 2.0
Q4 2022

Desktop Metal®

Team DM master materials list

At Desktop Metal, we offer more than metals now. Our materials library spans virtually every category, from metals and polymers, to ceramics, composites, and even upcycled materials such as wood.

In an effort to drive production 3D printing to the masses, our qualified materials are designed to ensure that you can 3D print with success and deliver the high-quality parts you need for end-use production. In fact, you won't find a more flexible Additive Manufacturing partner for the long term.

Our materials have been developed by an in-house team of world-leading materials scientists, as well as leading industry partners. Explore our portfolio.

Qualified
Printing and sintering profiles developed by Desktop Metal, with fully characterized material and mechanical properties.

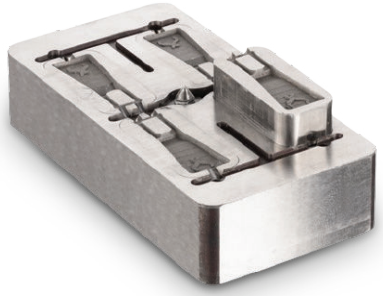
Customer Qualified
Printing and sintering profiles developed by or in partnership with customers and/or partners, with material and mechanical properties suitable for customer/partner applications.

R&D
Initial testing completed by Desktop Metal demonstrating binder and process compatibility. Printing and sintering profiles under final development.

Metal

Industry standard metals trusted by manufacturers	Desktop Metal			
	Studio System	Shop System	X-Series	Production System
17-4 PH Stainless Steel	Qualified	Qualified	Qualified	Qualified
304L Stainless Steel		R&D	Qualified	
316L Stainless Steel	Qualified	Qualified	Qualified	Qualified
4140 Low-Alloy Steel	Qualified		R&D	Qualified
420 Stainless Steel			R&D	
440C Stainless Steel				Qualified
4340 Low-Alloy Steel			R&D	
4605 Low-Alloy Steel			R&D	
Aluminum 6061			R&D	R&D
Bronze			R&D	
Cobalt Chrome		Qualified*	Customer Qualified	
Copper	Qualified		Customer Qualified	Qualified
D2 Tool Steel	Qualified			Qualified
DM HH Stainless Steel				Qualified
Gold			Customer Qualified	Customer Qualified
H13 Tool Steel	Qualified		Customer Qualified	R&D
Hastelloy			R&D	
Haynes 230			R&D	
Iron-Chrome-Aluminum			R&D	
M2 Tool Steel			Qualified	
Nickel Alloy Inconel 625	Qualified	Qualified	Qualified	Qualified
Nickel Alloy Inconel 718		R&D	Qualified	Qualified
Panacea (Ni-free Stainless Steel)			R&D	
S7 Tool Steel				Qualified
Silver			Customer Qualified	Qualified
Titanium (Ti64)	Qualified		R&D	R&D
Tungsten			R&D	
Tungsten Carbide Cobalt			Customer Qualified	R&D
Tungsten Heavy Alloy			Customer Qualified	
TZM Molybdenum			R&D	

*Not currently qualified for medical applications.
Material availability as of October 2022. Subject to change.



Ceramic

Technical and natural ceramics	Desktop Metal		ExOne			
	X-Series	Production System	S-Max Flex	S-Print	S-Max	S-Max Pro
Alumina	R&D					
Aluminum Nitride	R&D					
Carbon	Qualified			Qualified		
Glass	Qualified					
Natural Sands			Qualified	Qualified	Qualified	Qualified
Silicon Carbide	CustomerQualified					
Synthetic Sands				Qualified	Qualified	Qualified
Tungsten Carbide Cobalt	CustomerQualified	R&D				

Ceramic material is not fully qualified for medical applications.

Images (left to right):
Silver rings
17-44 PH golf club putter
IN625 gears
H13 injection mold

Polymer

Exclusive resins developed by ETEC and Adaptive3D as well as trusted providers such as Loctite	ETEC				
	Vida	Envision One	D4K	P4K	Xtreme 8K
CASTABLE RESINS					
Easy Cast 2.0	Qualified	Qualified			
EPIC			Qualified	Qualified	
PIC 100	Qualified		Qualified	Qualified	
WIC100 Series			Qualified	Qualified	
ELASTOMERS					
Adaptive3D Elastic ToughRubber™ 70 Black					Qualified
Adaptive3D Elastic ToughRubber™ 90 Black					Qualified
Adaptive3D Soft ToughRubber™ 30					Qualified
FreeFoam™					R&D
Loctite IND 402		Qualified			
HARD PLASTICS					
INFINAM ST 6100 L			R&D	Qualified	
E-Guide Soft		Qualified	Qualified	Qualified	
E-Rigid Form Charcoal		R&D	R&D	R&D	R&D
E-Tough Flex		Qualified	Qualified	Qualified	
Loctite 3843 Black		Qualified			Qualified
Loctite IND 405 Black		Qualified			Qualified
Loctite IND 405 Clear		Qualified			
Loctite Med 413 Clear		Qualified			
Q-View	Qualified		Qualified	Qualified	
RC70				Qualified	
RC90				Qualified	
HIGH TEMPERATURE					
E-Perform				Qualified	
E-Mould		R&D	R&D	R&D	
HTM 140	R&D		R&D	R&D	
Loctite IND 147		Qualified			
Loctite IND 406		Qualified			

			Desktop Health
	Envision One	D4K	Einstein
DENTAL / MEDICAL			
E-Guard	Qualified	Qualified	Qualified
E-Guide	Qualified	Qualified	Qualified
E-Gum	Qualified	Qualified	R&D
E-IDB	Qualified	Qualified	R&D
E-Keysplint Soft	Qualified	Qualified	R&D
E-Model Beige	Qualified	Qualified	R&D
E-Model Light	Qualified	Qualified	R&D
E-OrthoShape	Qualified	Qualified	R&D
E-Tray	Qualified	Qualified	R&D
Flexcera™ Base	Qualified	Qualified	Qualified
Flexcera™ Smile	Qualified	Qualified	Qualified
Flexcera™ Smile Ultra+	Qualified	Qualified	Qualified
Model X	Qualified	Qualified	Qualified
Model Z	Qualified	Qualified	Qualified
Press-E-Cast	Qualified	Qualified	R&D

Composite

CF Carbon Fiber **FG** Fiber Glass	Desktop Metal	
	Fiber	**X-Series**
+CERAMIC		
Boron Carbide i/w Aluminum		Customer Qualified
Silicon Carbide i/w Silicon		Customer Qualified
+METAL		
316i		Qualified
420i		Qualified
Iron i/w Bronze		R&D
Tungsten i/w Bronze		Qualified
Tungsten i/w Copper		R&D
Tungsten i/w Invar		R&D
+POLYMER		
Nylon + Chopped CF	Qualified	
Nylon + Continuous CF	Qualified	
PEEK + Chopped CF	Qualified	
PAEK + Continuous CF	R&D	
PEKK + Chopped CF	R&D	
Nylon + Chopped FG	R&D	
Nylon + Continuous FG	R&D	

Biofabrication

HT High Temperature **LT** Low Temperature	**RG** Research Grade **MG** Medical Grade **TG** Technical Grade	Desktop Health
		3D-Bioplotter
2K Silicone 50A RG	Soft tissue materials	Qualified
LT Hydroxyapatite RG	Bone/cartilage materials	Qualified
HT PCL 45K RG	Bone/cartilage materials	Qualified
HT PCL 80K MG	Bone/cartilage materials	Qualified
HT PCL 120K MG	Support materials/other	Qualified
HT Support RG	Bone/cartilage materials	Qualified
LT Silicone TG	Support materials/other	Qualified
LT Support RG	Support materials/other	Qualified
LT TissueInk RG	Soft tissue materials	Qualified
UV Silicone 60A MG	Soft tissue materials	Qualified

Wood

Rematerializing wood waste to produce beautiful end-use products.

Please visit Forust.com for more information.

Images (left to right):

Complete dentures 3D printed and assembled in Flexcera™ Base and Flexcera™ Smile.
The black shroud of the DustBuddie from Dustless® Technologies is 3D printed in Elastic ToughRubber.
Propeller blades binder jet 3D printed from sawdust and bio-epoxy resin in a variety of finishes.

Additive Manufacturing 2.0

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3D printing solutions with the speed, quality, and repeatability suitable for mass production.

Desktop Metal is accelerating the transformation of manufacturing with an expansive portfolio of 3D printing solutions, from rapid prototyping to mass production. Founded in 2015 by leaders in advanced manufacturing, metallurgy, and robotics, the company is addressing the unmet challenges of speed, cost, and quality to make additive manufacturing an essential tool for engineers and manufacturers around the world.

Desktop Metal was named one of the world's 30 Most Promising Technology Pioneers by the World Economic Forum, included on MIT Technology Review's list of 50 Smartest Companies, and awarded the 2021 Fast Company's Innovation by Design Award in materials and Next Big Thing in Tech Award for sustainability.

Printer platforms

Desktop Metal

Desktop Health

ETEC

ExOne

Materials

ADAPTIVE3D

FORUST

Applications and more

aidro
Desktop Metal Company

aerosint

Desktop Labs

DesktopMetal.com

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