

Resin Guide

Factsheet

With atum3D open platform DLP Machines, you are free to choose any resin. We've tested and selected some of the best resins on the market today for your convenience. Our close cooperation with suppliers keeps us on the forefront of resin developments and the application in our products.

We are here to help you select the resin with the optimal properties for your application. Can't find the combination of properties you're looking for right away? Don't worry. With the atum3D Material R&D Service, our Material Expert Team is your partner in finding or creating the resin you're looking for.

atum 3D
3D Manufacturing Excellence


Components				
Resin	3DM-Xgreen	MadeSolid Vorex	MadeSolid V1	3DM-ABS
Appearance	Green	Various	Black	Orange
Curing wavelength (nm)	405	400-430	400-430	405
Liquid density (g/cm ³)	1,12	N/A	N/A	1,12
Viscosity @rt (cps)	380-420 mPa.s	361	336	50MPa.s
Hardness	D83	D90	D92	D84
Tensile strength (Mpa)	50	41	N/A	N/A
Elongation at break (%)	25	4,9	N/A	N/A
Tensile modulus (Mpa)	2300	N/A	N/A	N/A
Residual ash content	N/A	N/A	0,1	N/A
Flexural strength (Mpa)	82	29,9	N/A	N/A
Shrinkage	N/A	N/A	N/A	N/A
Medical class	N/A	N/A	N/A	N/A
Flexural modulus (Mpa)	2200	820	N/A	N/A
Supplier	3D-Materials	MadeSolid	MadeSolid	3D-Materials
Application examples	<i>Functional components, hinges, hooks, gears, tools</i>	<i>Functional components, display items, enclosures, electronics housings</i>	<i>Functional components, display items, enclosures, electronics housings</i>	<i>Functional components, display items, enclosures, electronics housings</i>

R&D/Prototypes		Casting		
Resin	atum-Flex	Spot-E	Ti-Cast	MadeSolid V1
Appearance	Translucent	Red	Red	Black
Curing wavelength (nm)	405	400-420	405	400-430
Liquid density (g/cm ³)	1,1	1,1	N/A	N/A
Viscosity @rt (cps)	400mPa.s	400 mPa.s	360-440 mPa.s	336 mPa.s
Hardness	A60	A65	D80-90	D92
Tensile strength (Mpa)	na	30	N/A	N/A
Elongation at break (%)	25	0,65	N/A	N/A
Tensile modulus (Mpa)	N/A	N/A	N/A	N/A
Residual ash content	N/A	N/A	0,00%	0,10%
Flexural strength (Mpa)	N/A	N/A	N/A	N/A
Shrinkage	3%	0,02%	0,03%	N/A
Medical class	N/A	N/A	N/A	N/A
Flexural modulus (Mpa)	N/A	N/A	N/A	N/A
Supplier	atum3D	Spot-A Materials	atum3D	MadeSolid
Application examples	<i>Rubber components, stamps, shock absorbing components</i>	<i>Rubber like prototypes, wheels, pushbutton covers</i>	<i>Titanium castings, dental castings (e.g. crowns, bridges), jewellery castings, technical castings (e.g. gears, impellers and complex components in any metal)</i>	<i>Large casts, gear casings, figurines, pullies</i>

Medical / Dental				
Resin	Tray	Ortho Clear	C&B MFH	SG
Appearance	Blue/Pink	Clear	Various	Orange transparent
Curing wavelength (nm)	405	405	405	405
Liquid density (g/cm ³)	N/A	N/A	N/A	N/A
Viscosity @rt (cps)	0.9-1.4	0.8-1.3 Pa*s	0.8-1.3	1.1-1.6 Pa*s
Hardness	D80-90	D80-90	N/A	D80-90
Tensile strength (Mpa)	N/A	1,6	N/A	N/A
Elongation at break (%)	N/A	N/A	N/A	N/A
Tensile modulus (Mpa)	N/A	N/A	N/A	N/A
Residual ash content	N/A	N/A	N/A	N/A
Flexural strength (Mpa)	80-90	No break	100-130	70-80
Shrinkage	N/A	N/A	N/A	0,04%
Medical class	I	Ila	Ila	I
Flexural modulus (Mpa)	2200-2400	1700-1900	2400-2600	2000-2200
Supplier	NextDent	NextDent	NextDent	NextDent
Application examples	<i>Impression trays</i>	<i>Splints, surgical guides</i>	<i>Splints, surgical guides</i>	<i>Surgical guides</i>

www.atum3D.com

For more information and specifications, please contact:


3D Center
 YOUR IDEA IN OUR DIMENSION
 3D Center info@3dcenter.se
 Kvarngatan 7 + 46 (0)490-10040
 593 30 Västervik
 Sweden


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