



RESIN GUIDE

1. Open platform.
2. Unrivalled properties.
3. Create standards.

atum3D combines in-house expertise in the fields of hardware engineering, chemical material properties and software to create 3D excellence for your specific application. Our open platform DLP Station range and proprietary Resin Tray coating allows us to give you unbiased advise on the best resin for your application. Working closely with leading resin suppliers, we're on the forefront of new resin developments. This Resin Guide contains a selection of popular resins to give you an idea about the possibilities.

atum 3D

3D Manufacturing Excellence

WE HELP YOU FIND OR CO-CREATE YOUR RESIN

Tell us your application and we'll help you find the resin that offers the best fit with your desired material properties. Can't quite find the right combination of properties? With the atum3D Material R&D Service, our team is your partner in searching for or even creating the specific resin you're looking for. We can often adjust hardware settings or work together with resin suppliers to provide the print speed, detail or mechanical properties your application requires.

TOUGH

Resin	Ultracur3D® ST 45	Ultracur3D® ST 45 B	Ultracur3D® ST 1400	Ultracur3D® ST 80	Ultracur3D® ST 80 B	Ultracur3D® ST 80 W
Key property	Tough	Tough	Tough	Tough	Tough	Tough
Appearance	Clear	Black	Clear	Clear	Black	White
Hardness (Shore)	D80	D80	D78	D80	D77	D74
Tensile strength (Mpa)	60	53	45	35	35	37
Elongation at break (%)	25	21	43	20	25	20
Supplier	BASF 3D Printing Solutions	BASF 3D Printing Solutions	BASF 3D Printing Solutions	BASF 3D Printing Solutions	BASF 3D Printing Solutions	BASF 3D Printing Solutions

TOUGH

Resin	Ultracur3D® ST 80 G	Infinam® ST 6100 L	Infinam® TI 3100 L	Loctite® 3D IND 405 HDT 50	Loctite® 3D IND 405 HDT 50	Loctite® 3D 3843
Key property	Tough	Tough	Tough	Tough	Tough	Tough
Appearance	Grey	Black	Black	Clear	Black	Black / Grey
Hardness (Shore)	D77	D89	D80	D80	D80	D75
Tensile strength (Mpa)	38	89	35	52	44	60
Elongation at break (%)	22	6	120	127	101	47
Supplier	BASF 3D Printing Solutions	Evonik	Evonik	Henkel	Henkel	Henkel

TOUGH

Resin	Clear Impact	Strong-X	Diabeam™ H 01 C	Diabeam™ H 02 C
Key property	Tough	Tough	Tough	Tough
Appearance	Clear	Grey	Clear	Clear
Hardness (Shore)	D68	D87	D79-80	D79-80
Tensile strength (Mpa)	47	52-70	33	33
Elongation at break (%)	15-25	4-8	19	19
Supplier	Liqcreate	Liqcreate	Mitsubishi Chemical	Mitsubishi Chemical

RIGID

Resin	Ultracur3D® RG 35	Ultracur3D® RG 35 B	Ultracur3D® RG 1100	Ultracur3D® RG 1100 B	Ultracur3D® RG 3280	Infinam® RG 3101 L
Key property	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Appearance	Clear	Black	Clear	Black	White	Black
Hardness (Shore)	D85	D83	D85	D84	D96	D80
Tensile strength (Mpa)	80	62	70	70	76	52
Elongation at break (%)	6	10	5	5	1	32
Supplier	BASF 3D Printing Solutions	BASF 3D Printing Solutions	BASF 3D Printing Solutions	BASF 3D Printing Solutions	BASF 3D Printing Solutions	Evonik

RIGID

Resin	Infinam® RG 2000 L	Infinam® RG 7100 L	Loctite® 3D 3860	Deep Blue	Stone Coal Black	Premium White
Key property	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Appearance	Clear	Black	Black	Blue (translucent)	Black (opaque)	White (opaque)
Hardness (Shore)	D85	D81	D80	D81	D80	D82
Tensile strength (Mpa)	53	51	37-41	73	62	45
Elongation at break (%)	48	48	1-2	5	4	8
Supplier	Evonik	Evonik	Henkel	Liqcreate	Liqcreate	Liqcreate

FLEXIBLE

Resin	Ultracur3D® EL 60	Ultracur3D® EL 150	Ultracur3D® EL 4000	Ultracur3D® EL 4000 B	Ultracur3D® FL 60	Ultracur3D® FL 300
Key property	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible
Appearance	Clear	Clear	Clear	Black	Clear	Clear
Hardness (Shore)	A75	A80	A90	A90	A60	A40
Tensile strength (Mpa)	9	7	11	11	4	5
Elongation at break (%)	95	182	172	120	90	245
Supplier	BASF 3D Printing Solutions	BASF 3D Printing Solutions	BASF 3D Printing Solutions	BASF 3D Printing Solutions	BASF 3D Printing Solutions	BASF 3D Printing Solutions

FLEXIBLE

Resin	Loctite® 3D IND 402 A 70
Key property	Flexible
Appearance	Black
Hardness (Shore)	A76
Tensile strength (Mpa)	6
Elongation at break (%)	230
Supplier	Henkel

SPECIALTY

Resin	Ultracur3D® DM 2505	Tough-X	Hazard Glow
Key property	Dental	Rigid rubber-like	Glow-in-the-dark
Appearance	Beige	Black	Green (opaque)
Hardness (Shore)	D73	D60 / A95	D77
Tensile strength (Mpa)	48	15	49
Elongation at break (%)	4	100-150	5
Supplier	BASF 3D Printing Solutions	Liqcreate	Liqcreate

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atum3D strives for 3-fold excellence. With proprietary **software, hardware** and an **open resin platform**, we offer exceptional **accuracy, speed** and **cost-effectiveness**. We aim to make your life easy with comprehensive **training, services** and **support**. Team up with atum3D and become a part of the next industrial revolution!

For more information and specifications, please call +31 (0)85 488 26 60 or visit atum3D.com.

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