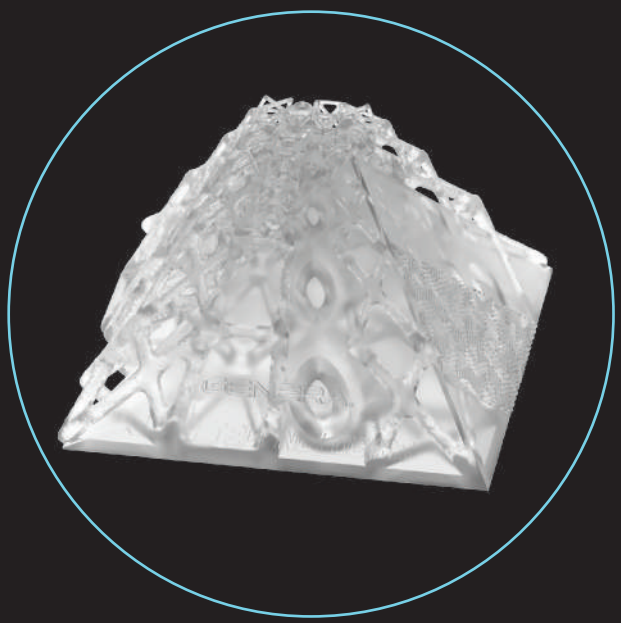
GENERA.



MATERIAL LIBRARY

PIXEL SISTEMAS

stratasys

Creation made reliable.

Contents

Process

The GENERA process features an open material library. New materials form our material partnersare continuously screened and tested by the GENERA Team.The GENERA Process Development Team carefully tunes the process parameters for each resin to provide you the best possible results. Together with our material partners we validate each material according to their specific properties before a material is released.

Material Status

Released

In validation

Compatible Systems

All materials and material parameters are compatible with our full product portfolio.

G2.

Higher volume. More speed. 3D printing production like never before. The G2 was developed for industrial use, for service providers and factories alike. It is ca pable of doubling the output, since it can print two separate jobs without supervision.

F2.

Forget everything you know about post -processing. The intelligent washing program of the F2 adapts to the structure of the printed component and the material used, providing perfect surfaces and printing results every time.

A2.

True industrial automation has reached the 3D printing market with GENERA's A2 system. The A2 automation module connects the powerful G2 printer with the F2 post -processing unit to allow for lights out manufacturing.

G3.

The powerful technologies of the G2 and F2 have now been integrated into one compact machine. For the first time ever, users can take a digital part file to a fully washed and post-cured part, all in one machine.

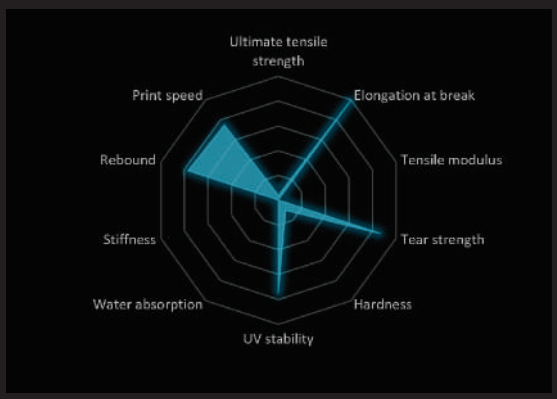
MATERIAL

Loctite 3D IND475

CATEGORY

ELASTOMERIC

MATERIALSTATUS



MECHANICAL DATA	
Young’s Modulus	1.1 MPa
Tensile Strength	3.1 MPa
Rebound	55 %
Elongation at Break	200 %
Tear strength	13 kN/m
Shore Hardness	57 A

PROPERTIES	APPLICATIONS
True elastomeric behavior	Air and dust gaskets
Fast printing with low shrinkage behavior	Flexible seals and housings
High resilience / High energy return	Cushioning pads

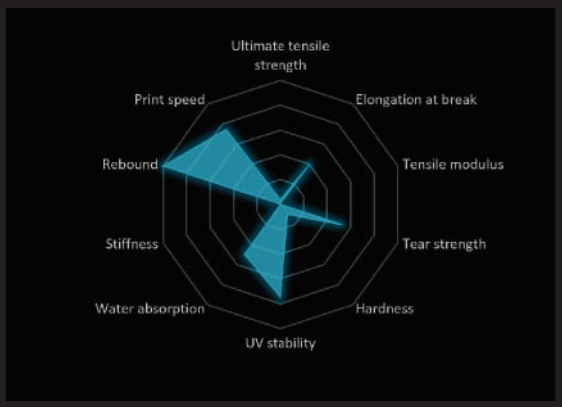
MATERIAL

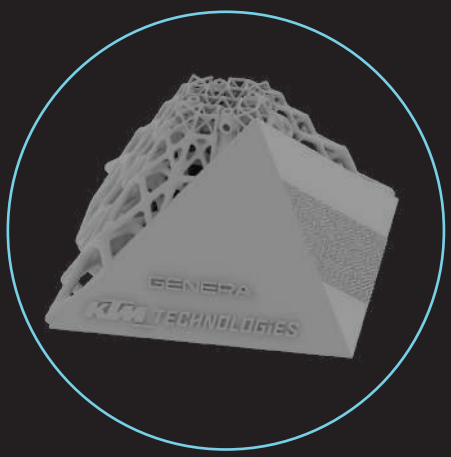
Loctite 3D 8195

CATEGORY

ELASTOMERIC

MATERIALSTATUS





MECHANICAL DATA	
Young's Modulus	3.55 MPa
Tensile Strength	3.28 MPa
Rebound	71 %
Elongation at Break	813 %
Tear strength	8 kN/m
Shore Hardness	60 A

PROPERTIES	APPLICATIONS
Elastomeric 3D printing resin	Grips and cushions
Extremely quick rebound performance	Sealings
High-resolution	Functional rubber prototypes
Excellent surface finish	

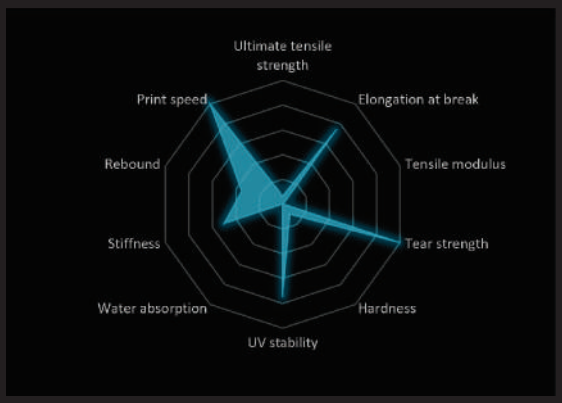
MATERIAL

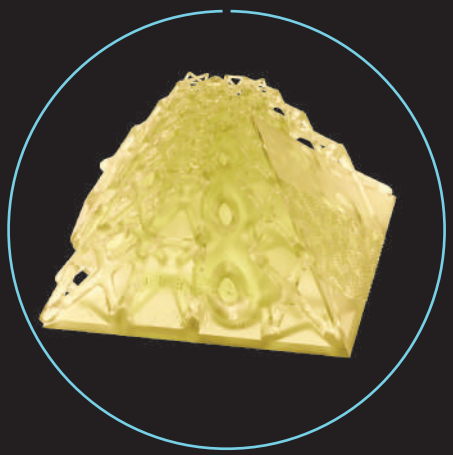
Ultracur3D EL150

CATEGORY

ELASTOMERIC

MATERIAL STATUS





MECHANICAL DATA	
Young's Modulus	25 MPa
Tensile Strength	6 MPa
Rebound	25 %
Elongation at Break	150 %
Tear strength	15 kN/m
Shore Hardness	70-80 A

PROPERTIES	APPLICATIONS
Medium hardness	Footwear
High strength	Prototyping
High elongation at break	Cushioning pads
Good rebound	Flexible grip

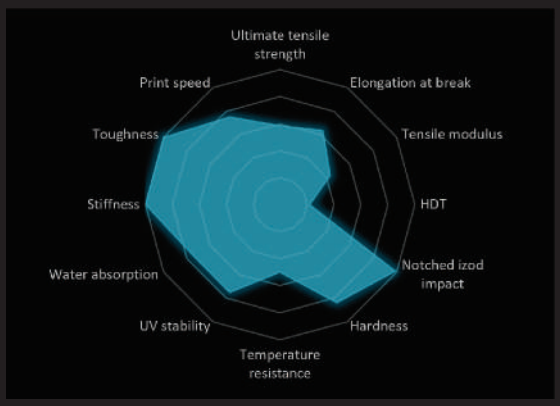
MATERIAL

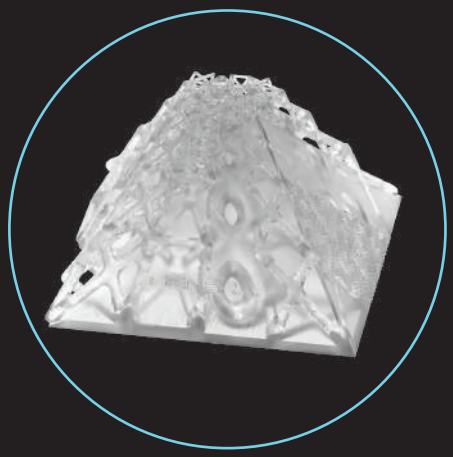
Loctite 3D IND405

CATEGORY

TOUGH

MATERIALSTATUS





MECHANICAL DATA	
Young’s Modulus	1378 MPa
Tensile Strength	52 MPa
HDT	53 °C
Elongation at Break	127 %
IZOD Impact	72 J/m
Shore Hardness	79 D

PROPERTIES	APPLICATIONS
High impact resistance with high elongation	Clear prototypes
The toughest clear resin	Fluid routing & consumer goods
Functional prototyping	Manufacturing aids/tools
	Housings

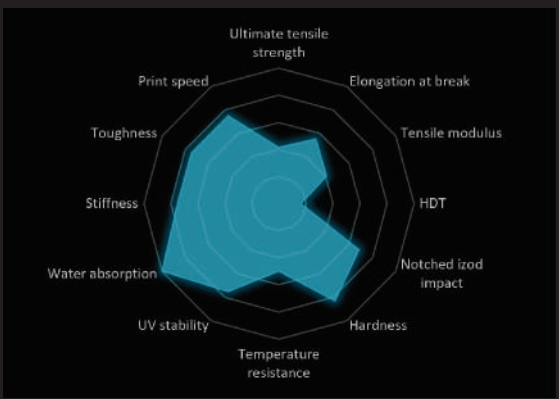
MATERIAL

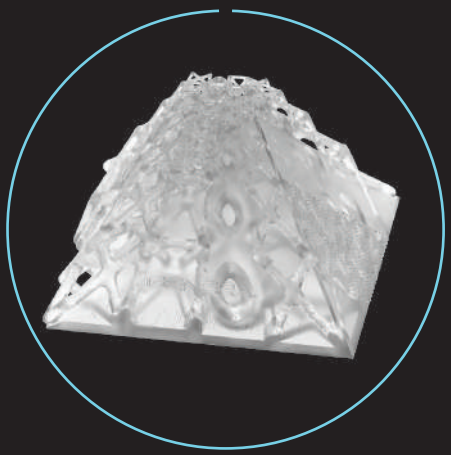
Loctite 3D MED412

CATEGORY

TOUGH

MATERIALSTATUS





MECHANICAL DATA	
Young's Modulus	1305 MPa
Tensile Strength	37 MPa
HDT	39 °C
Elongation at Break	110 %
IZOD Impact	50 J/m
Shore Hardness	78 D

PROPERTIES	APPLICATIONS
ISO 10993-5 & 10 standards for biocompatibility	Class I and IImedical devices
Tough with superior elongation	Medical equipment components
Good impact strength and surface finish	

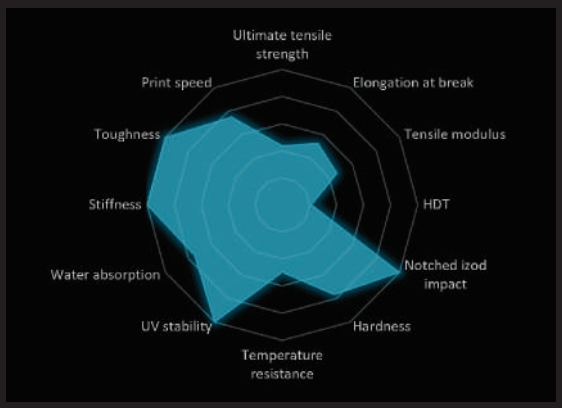
MATERIAL

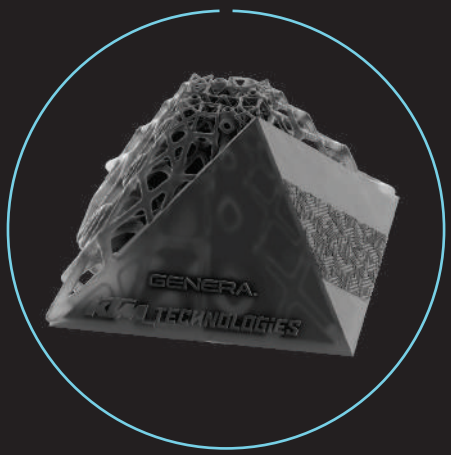
Loctite 3D 3172

CATEGORY

TOUGH

MATERIALSTATUS





MECHANICAL DATA	
Young's Modulus	1494 MPa
Tensile Strength	39 MPa
HDT	51 °C
Elongation at Break	105 %
IZOD Impact	73 J/m
Shore Hardness	72 D

PROPERTIES	APPLICATIONS
Tough & durable	Manufacturing aids / jigs & fixtures
Superior impact strength	Housings
Nice surface finish, machinable	Insoles

MATERIAL

Ultracur3D ST80W

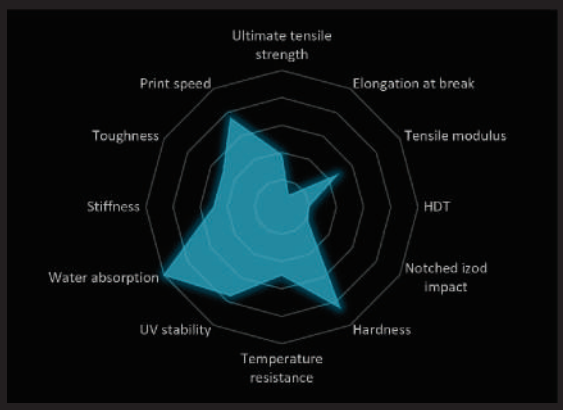
CATEGORY

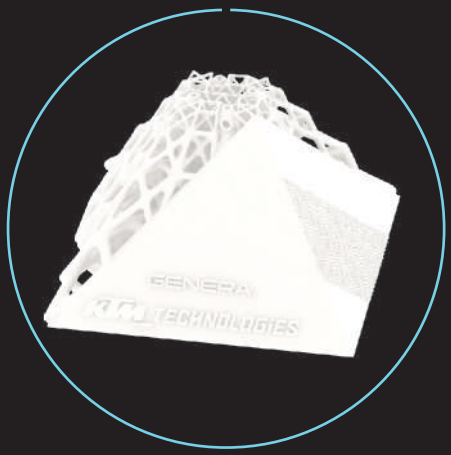
TOUGH

MATERIALSTATUS

GENERA.

BASF We create chemistry | FORWARD AM Innovating Additive Manufacturing





MECHANICAL DATA	
Young's Modulus	1500 MPa
Tensile Strength	34 MPa
HDT	46 °C
Elongation at Break	19 %
IZOD Impact	16 J/m
Shore Hardness	80 D

PROPERTIES	APPLICATIONS
Well-balanced multi-purpose material	Electrical casings
High toughness and impact resistance	Consumer goods and tools
High UV stability	Orthopedics

MATERIAL

INFINAM TI3100L

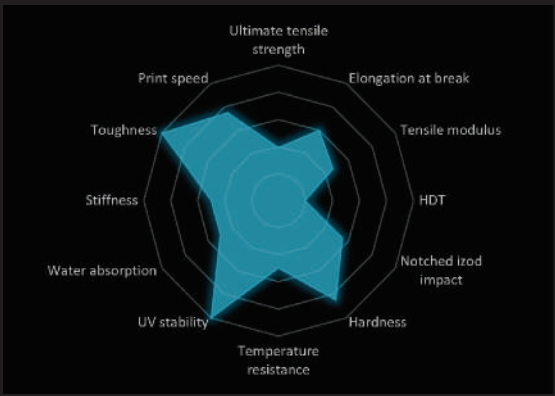
CATEGORY

TOUGH

MATERIALSTATUS

GENERA.

EVONIK
Leading Beyond Chemistry



MECHANICAL DATA	
Young's Modulus	1500 MPa
Tensile Strength	35 MPa
HDT	47 °C
Elongation at Break	120 %
IZOD Impact	40 J/m
Shore Hardness	80 D

PROPERTIES	APPLICATIONS
High toughness	Industrial components
High impact resistance	Automotive parts
High elongation at break over 100%	Strong mechanical parts
Good processability	

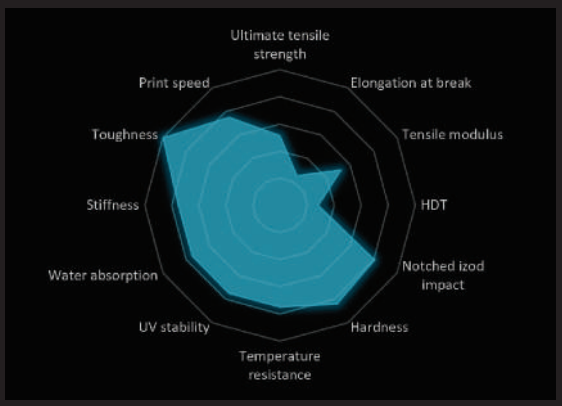
MATERIAL

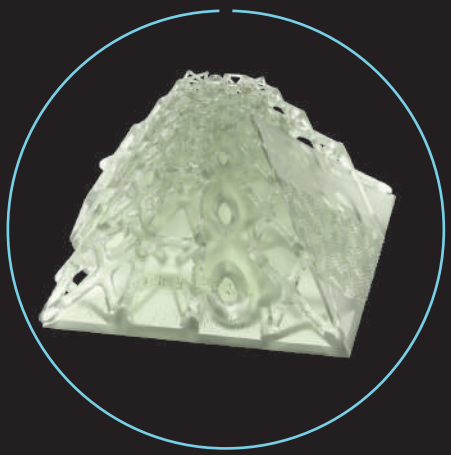
Loctite 3D MED413

CATEGORY

TOUGH

MATERIALSTATUS





MECHANICAL DATA	
Young's Modulus	1673 MPa
Tensile Strength	46 MPa
HDT	68 °C
Elongation at Break	51 %
IZOD Impact	59 J/m
Shore Hardness	79 D

PROPERTIES	APPLICATIONS
ISO 10993-5 & -10 standards for biocompatibility	Medical devices
Outstanding surface finish	Medical equipment components
Excellent machineability	Hearing aids

MATERIAL

Loctite 3D 3843

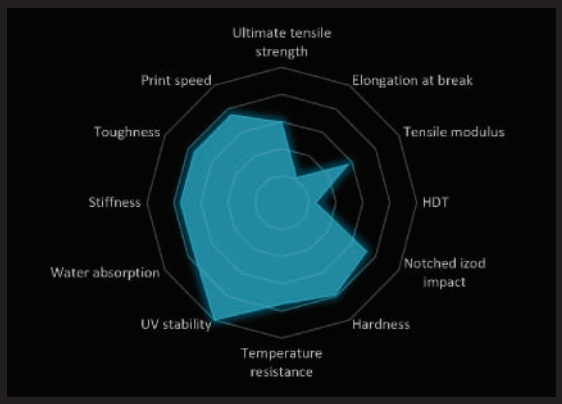
CATEGORY

TOUGH

MATERIALSTATUS

GENERA.

Henkel



MECHANICAL DATA	
Young’s Modulus	1806 MPa
Tensile Strength	53 MPa
HDT	60 °C
Elongation at Break	43 %
IZOD Impact	53 J/m
Shore Hardness	74 D

PROPERTIES	APPLICATIONS
Semi-flexible	Manufacturing aids
Moderate heat resistance, HDT 60°C	Jigs and fixtures
Superior strength and impact resistant	Housings and covers
Excellent matt surface finish	Insoles

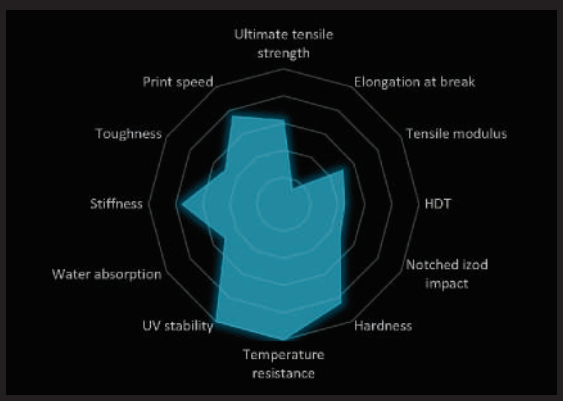
MATERIAL

Loctite 3D IND406

CATEGORY

TOUGH

MATERIALSTATUS



MECHANICAL DATA	
Young’s Modulus	1610 MPa
Tensile Strength	55 MPa
HDT	107 °C
Elongation at Break	25 %
IZOD Impact	35 J/m
Shore Hardness	79 D

PROPERTIES	APPLICATIONS
High heat deflection temperature	Interior applications in automotive
Tough and durable	Tooling and fixtures
Glossy surface finish	Machinery components

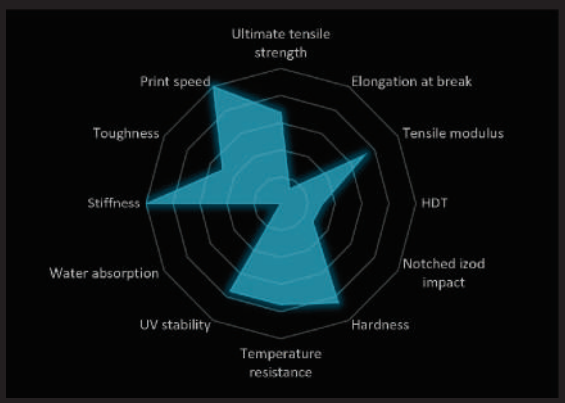
MATERIAL

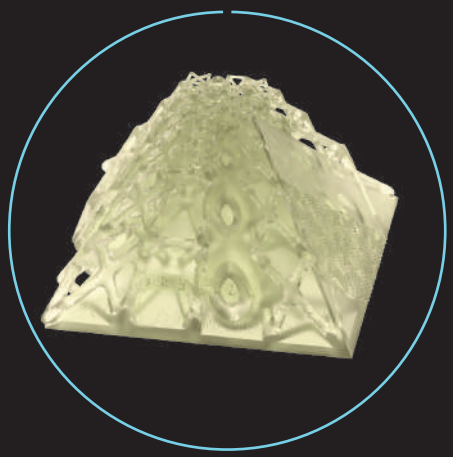
Ultracur3D ST45

CATEGORY

TOUGH

MATERIAL STATUS





MECHANICAL DATA	
Young's Modulus	2300 MPa
Tensile Strength	60 MPa
HDT	63 °C
Elongation at Break	21%
IZOD Impact	20 J/m
Shore Hardness	80 D

PROPERTIES	APPLICATIONS
Combination of high strength, toughness, and impact resistance	Housings
Fast printing	Prototyping
Good surface finishing	High details and texture parts

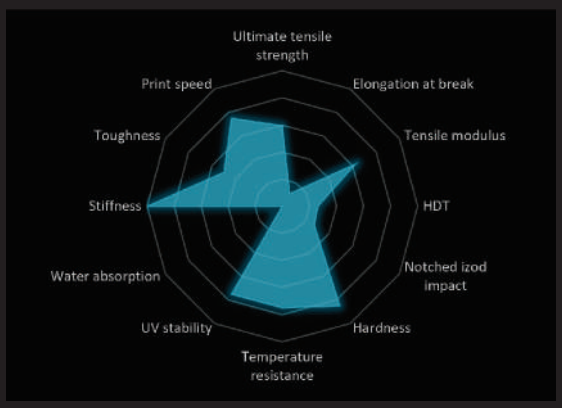
MATERIAL

Ultracur3D ST45B

CATEGORY

TOUGH

MATERIAL STATUS



MECHANICAL DATA	
Young's Modulus	2000 MPa
Tensile Strength	53 MPa
HDT	63 °C
Elongation at Break	21%
IZOD Impact	20 J/m
Shore Hardness	80 D

PROPERTIES	APPLICATIONS
High strength, toughness, and impact resistance	Housings
Fast printing	Prototyping
Good surface finishing	High details and texture parts

MATERIAL

Ultracur3D RG35

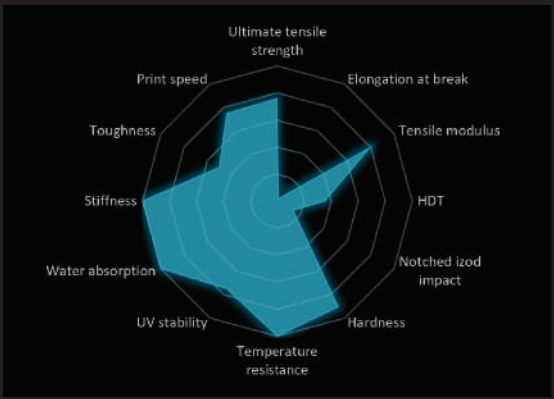
CATEGORY

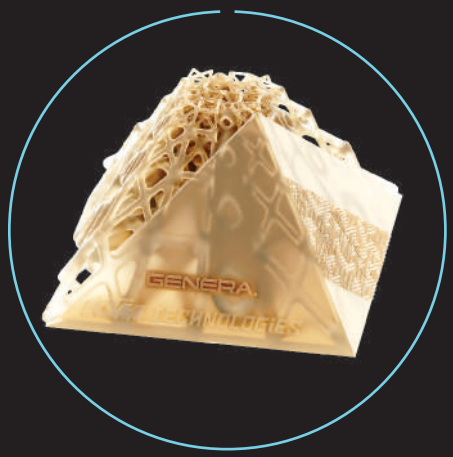
RIGID

MATERIALSTATUS

GENERA.

BASF We create chemistry | FORWARD AM Innovating Additive Manufacturing





MECHANICAL DATA	
Young's Modulus	2539 MPa
Tensile Strength	67. MPa
HDT	84 °C
Elongation at Break	3.8 %
IZOD Impact	10 J/m
Shore Hardness	85 D

PROPERTIES	APPLICATIONS
Very high stiffness	Automotive housings
High temperature resistance	Jigs and fixtures
High accuracy and low shrinkage	Molds and inserts
Low water uptake	Electrical casings
Easy to polish	

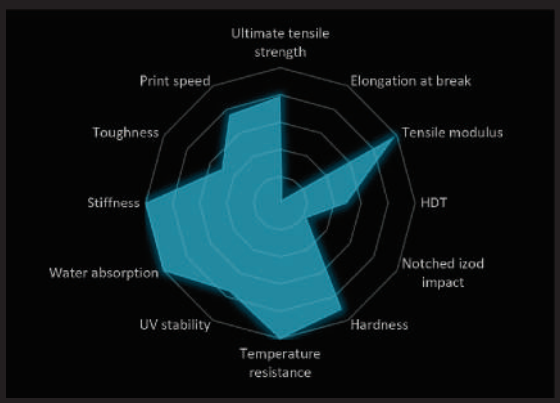
MATERIAL

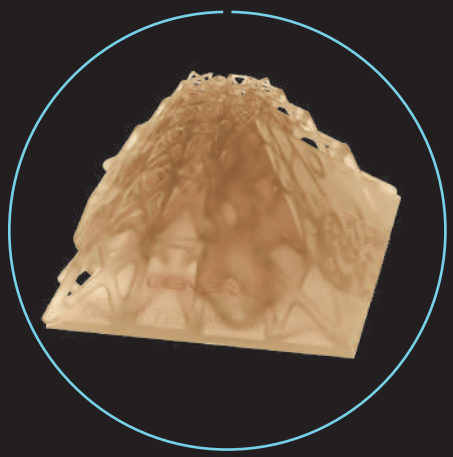
Ultracur3D RG1100

CATEGORY

RIGID

MATERIAL STATUS





MECHANICAL DATA	
Young's Modulus	3080 MPa
Tensile Strength	70 MPa
HDT	116 °C
Elongation at Break	5 %
IZOD Impact	16 J/m
Shore Hardness	85 D

PROPERTIES	APPLICATIONS
Very high stiffness	Automotive connectors
High temperature resistance	Demanding engineering parts
Very high chemical resistance	Exterior covers
Low water uptake	Brackets and housings

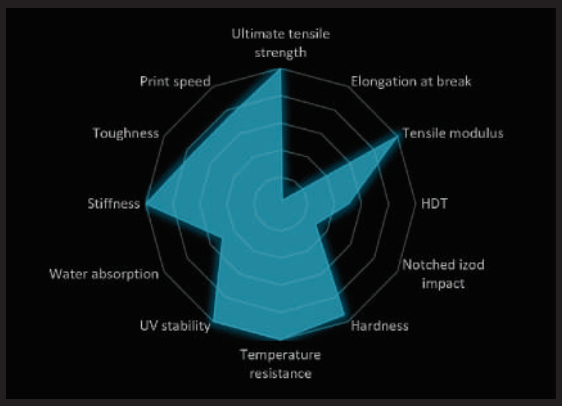
MATERIAL

INFINAM ST6100L

CATEGORY

RIGID

MATERIALSTATUS



MECHANICAL DATA	
Young's Modulus	3200 MPa
Tensile Strength	89 MPa
HDT	120 °C
Elongation at Break	6 %
IZOD Impact	22 J/m
Shore Hardness	89 D

PROPERTIES	APPLICATIONS
High tensile strength combined with elongation	Industrial components
High temperature resistance	Automotive parts
Very good weatherability	Molding

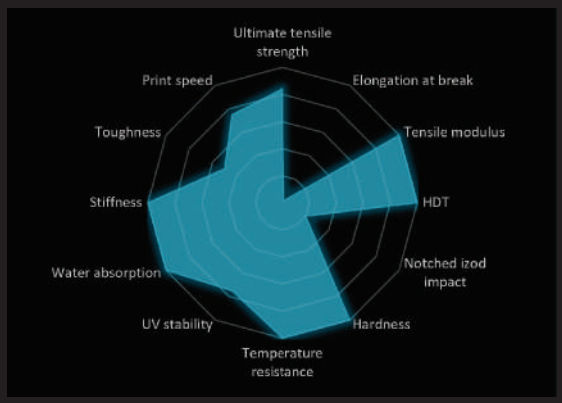
MATERIAL LIBRARY

Loctite 3D IND147

CATEGORY

RIGID

MATERIALSTATUS



MECHANICAL DATA	
Young’s Modulus	3200 MPa
Tensile Strength	75 MPa
HDT	238 °C
Elongation at Break	3 %
IZOD Impact	14.6 J/m
Shore Hardness	94 D

PROPERTIES	APPLICATIONS
High heat deflection temperature	Tooling applications
Good dimensional stability	Molds
Good surface finish	
Sufficient toughness	

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