

3D Printing

Additive Materials Resins



High-Performance Chemistry™

37 Years of Continuous Innovation

Founded in 1986, SDC Technologies (SDC) is the pioneer of innovative high performance-based abrasion, chemical, impact and fog resistant coatings used in a variety of applications from aerospace and automotive parts to vision eyewear. Trusted by the world's most prestigious brands, our premium coatings are used to enhance products, where high performance is critical, including the Olympic Games' swim goggles and NASA Space Mission helmets.

Entering Additive Manufacturing Photopolymer Industry

SDC's established technical experience and capability in UV-cure materials and equipment is well suited to VAT Photopolymerization 3D printing process. In 2019, SDC opened an Additive Manufacturing Material Development lab, fully equipped with measurement equipment and DLP/SLA printers. Utilizing a state-of-the-art facility, SDC's team of experienced chemists and polymer engineers developed a range of engineering/production grade photopolymer resins under the 3DLite™ brand.

Moving Beyond Industry Limitation with Sustainable Partnerships

SDC is a value-driven company, committed to delivering world-class quality products achieved through our *Trusted Advisor Program*. Our mission as Trusted Advisors is to partner and work with our customers as an extension of their team, to create and build value while assisting in achieving goals and objectives. If you have unique material requirements, we will design specific product solutions to meet your performance specifications. We have an array of formulations available at the R&D level as a pre-cursor to create custom materials, or we can develop original materials for your highly specialized application. Our vision is to exceed customer expectations and to provide you the perfect material for your application.

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BENEFITS

- Superior strength and durability
- Excellent smooth surface for small to large part quality and repeatability
- Tough and resilient substrate material
- Robust appearance for prototyping and end use applications
- Single curing cycle and convenient solvent cleaning



3DLite 308-BCGP Red / White

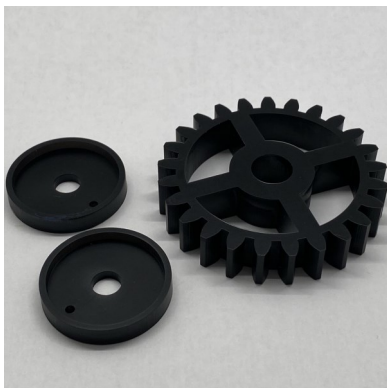
Well-Balanced Resin for Prototypes

FEATURES:

- Biocompatibility (extended skin contact)
- Smooth surface - does not require post processing
- Durable/ Polishable/ One-pot system
- High printing resolution

APPLICATIONS:

- Medical device prototyping (surgical tools, wearable device)
- Consumer goods or cosmetics prototype



3DLite 312-RB Black / Clear

Tough Resin with an exceptionally smooth surface finish

FEATURES:

- Extremely Smooth Surface - does not require post processing
- High printing resolution
- Impact Strength (notched Izod ~36 J/m)
- High mechanical performance (Screw threadable)
- Chemical resistance (gasoline 24hour soak test)
- High Tg (sterilizable/autoclavable)
- One-pot system
- Good elongation
- Easy to clean

APPLICATIONS:

- Form and fit testing
- Injection molded product prototypes
- Jigs and fixtures and tooling
- Manifolds
- Electrical casings , automotive housings and enclosures
- Wear-and-tear prototypes



3DLite 322-BC Clear / SoftBlack / ToughBlack

Flexible Resin

FEATURES:

- Smooth surface - does not require post processing
- Elastomer-like material
- One-pot system
- No need for thermal post-cure
- Easy to print (good printability)
- Soft (Shore A 40-60)
- Biocompatible (Pending)

APPLICATIONS:

- Wearables and consumer goods prototyping
- Medical models and devices
- Handles, grips, and over-molds
- Special effects props and models
- Cushioning and damping

Product Name	3DLite 308-BCGP RED		3DLite 308-BCGP WHITE	3DLite 312-RB BLACK	3DLite 322-BC BLACK
Characteristics	Medical Prototype Biocompatibility		Medical Prototype Biocompatibility	Tough	Flexible
Measurement	Method	Metric			
Viscosity	Brookfield viscometer @ 25 °C	1400 CPS	1225 CPS	2200 CPS	3150 CPS
Specific Gravity	ASTM D792	1.13 g/cm ³	1.13 g/cm ³	1.067g/cm ³	1.03 g/cm ³
Tensile Strength	ASTM D638	47 MPa	31 MPa	43 MPa	3.3 MPa
Tensile Modulus	ASTM D638	2.1 GPa	1.6 GPa	2.7 GPa	1.6 GPa
Elongation	ASTM D638	6%	8%	12%	205%
Flexural Strength @ max. load	ISO 178	74 MPa	50 MPa	64 MPa	64 MPa
Flexural Modulus	ISO 178	1.9 GPa	1.3 GPa	1.6 GPa	1.6 GPa
IZOD Impact Strength (notched)	ASTM D256	13 J/m	20 J/m	28 J/m	N/A
Heat Deflection Temp @ 1.80 MPa	ISO 75	46 °C	36 °C	56 °C	N/A
Heat Deflection Temp @ 0.45 MPa	ISO 75	68 °C	53 °C	29 °C	N/A
Shore Hardness	ASTM D2240	85D	85D	75D	65A
Glass Transition Temperature	DMA/DSC	93 °C /DMA	80 °C /DMA	130 °C /DMA	- 58°C /DSC
Compression set 72 hrs. @23°C	ASTM D395-B	N/A	N/A	N/A	2.3%
Compression set 73 hrs. @70°C	ASTM D395-B	N/A	N/A	N/A	1.1%
Rebound Resilience 16" Drop height	ASTM D2632	N/A	N/A	N/A	13%
Tear Strength	ASTM D624-C	N/A	N/A	N/A	11.4 kN/m

Warranty/Disclaimer: Performance characteristics of these products may vary according to product application, operating conditions, or with end use. SDC Technologies makes no warranties of any type, express or implied, including, but not limited to, the warranties of merchantability or fitness for a particular use.

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