

MATERIAL DATA SHEET



3DLite® ATHENA BLACK

3D PRINT RESIN (DLP)

Tough Resin with an Exceptionally Smooth Surface Finish

HIGH PERFORMANCE PHOTOPOLYMER

Founded in 1986, SDC Technologies, Inc. (SDC) is the global leader of premium coatings. SDC's established technical experience and capability in UV-cure materials gave birth to the development in DLP/SLA 3D printing material. Utilizing a state-of-the-art adaptive manufacturing scientific lab, SDC's team of experienced chemists and polymer engineers have developed a range of engineering/production grade photopolymer resins under the 3DLite® brand.

PREMIUM FUNCTIONAL RESINS

With more than 35 years of product innovation, SDC's proprietary technologies are trusted by the world's most prestigious brands. 3DLite resins were designed to enhance your production process by improving the quality of your products while reducing cost at the same time.

PRODUCT OVERVIEW

3DLite Athena Black is a PP-like material with industry-leading mechanical performance, suitable for various applications including prototyping and low-volume production. It demonstrates extremely smooth surface quality and exceptional precision.

PERFORMANCE FEATURES

- Functional parts with reliable material properties—mechanical strength and stability.
- Extremely smooth surface with minimal post processing.
- PP-like parts: look and feel of injection-molded parts.
- No additional thermal curing/post-processing required.

APPLICATIONS

- Automotive housing and enclosures
- Consumer electronic components
- Replacement parts
- Snap-fits/form and fit-testing
- Jigs and fixtures/Housings

3DLite™ ATHENA BLACK	METRIC	METHOD
Tensile Strength	43 MPa	ASTM D638
Tensile Modulus	2.7 GPa	ASTM D638
Elongation	12%	ASTM D638
Flexural Strength @ max. load	64 MPa	ISO 178
Flexural Modulus	1.6 GPa	ISO 178
IZOD Impact Strength (notched)	28 J/m	ASTM D256
Heat Deflection Temp @ 0.45 MPa	56 °C	ISO 75
Heat Deflection Temp @ 1.80 MPa	29 °C	ISO 75
Glass Transition Temp	130 °C	DMA
Shore D Hardness	75	ASTM D2240
Viscosity	2200 CPS @ 25°C	Brookfield viscometer @ 25 °C
Specific Gravity	1.067g/cm ³	ASTM D792

1. Material properties can vary with part geometry, print orientation, print settings and temperature.
2. Data was obtained from parts printed using B9Creations Core 550, washed in IPA for 20 minutes and post-cured with Form-Cure at room temperature for 60 minutes.

To the best of our knowledge the information contained herein is accurate. However, SDC Technologies, Inc. makes no warranty, expressed or implied, regarding the accuracy of these results to be obtained from the use thereof.

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