MATERIAL DATA SHEET

3DLite® APOLLO RED

3D PRINT RESIN (DLP)

Well-Balanced Performance with Biocompatibility

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 Apollo Red delivers a well-rounded performance with a certified biocompatibility for skin contact. Uniquely formulated for medical device and wearable devices prototyping and other high-performance applications where extremely smooth surface quality and consistent repeatability are required.

PERFORMANCE FEATURES

- Well-balanced resin for medical and wearable device prototypes
- Biocompatibility Certified for extended skin contact (ISO10994-3-5)
- Extremely smooth surface with minimal post processing
- Excellent product durability and stability
- No additional thermal curing/post-processing required

APPLICATIONS

- Medical device prototyping
- Surgical tools
- Wearable devices
- Consumer goods
- Cosmetic prototypes

sdc Technologies

3DLite® APOLLO RED

3DLite™ APOLLO RED	METRIC	METHOD
Tensile Strength	47 MPa	ASTM D638
Tensile Modulus	2.1 GPa	ASTM D638
Elongation	6%	ASTM D638
Flexural Strength @ max. load	74 MPa	ISO 178
Flexural Modulus	1.9 GPa	ISO 178
IZOD Impact Strength (notched)	13 J/m	ASTM D256
IZOD Impact Strength (unnotched)	161 J/m	ASTM D4812
Heat Deflection Temp @ 1.80 MPa	46 °C	ISO 75
Heat Deflection Temp @ 0.45 MPa	68 °C	ISO 75
Shore D Hardness	85	ASTM D2240
Glass Transition Temperature	93 °C	DMA
Viscosity	1400 CPS	Brookfield viscometer @ 25 °C
Specific Gravity	1.13 g/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.

SDC TECHNOLOGIES, INC. – USA
Corporate Headquarters, North America
T: +1-714-939-8300
F: +1-714-939-8330
customercare.ca@sdctech.com

SDC TECHNOLOGIES – CHINA
China Office
T: +86-21-61517768
F: +86-21-61304925
customercare.cn@sdctech.com

SDC TECHNOLOGIES –EU
European Office
T: +44-1633-627030
customercare.eu@sdctech.com

SDC TECHNOLOGIES ASIA PACIFIC, PTE. LTD.
Singapore Office
T: +65-6210-6355
F: +65-683-3536
customercare.ap@sdctech.com

SDC Technologies

High Performance Chemistry™

sdctech.com

Mitsui Chemicals Group