

Spectroplast TrueSil A50

A white translucent silicone material for general applications

TrueSil Silicone products are high performance 3D printed (3DP) silicone rubber products produced by Spectroplast's proprietary Silicone Additive Manufacturing (SAM) technology. These silicone elastomers are made of 100% pure silicone and fulfill market standards in terms of performance and surface quality. TrueSil Silicone products come in various shore durometers. All 3D printed products made of TrueSil Silicone are postprocessed after 3D printing to obtain final performance. All tests and certifications are performed on printed products and not the raw material.



MATERIAL DATA

TrueSil A50

	METRIC ¹	IMPERIAL ¹	METHOD
Shore Hardness	50A ± 5		ISO 7619-1
Young's Modulus	0.8 MPa		ISO 37 Type 4
Tensile Strength	8.5 MPa	1233psi	ISO 37 Type 4
Elongation	550%		ISO 37 Type 4
Tear Strength	10 N/mm	57.1 lbs/in	ASTM D624 Type C
Compression Set ^{24h RT}	< 1.5%		ASTM D395 Type B
Compression Set ^{24h 80°C}	< 13%		ASTM D395 Type B
Color	white translucent		
Cytotoxicity ²	Non-Cytotoxic		ISO 10993-5:2009
Skin Irritation ²	Non-Skin Irritant		ISO 10993-23:2021-10
Density (Solid)	1.103 g/cm ³	2.14 sl/ft ³	ISO 27813 ³
Rebound Resilience	66%		ISO 4662

¹Material properties can depend on part geometry, print orientation, temperature and disinfection or sterilisation methods. Values marked as NA will follow once measurements have concluded.

²Printed parts were submitted to TentaConsult for evaluation in accordance with ISO10993-5:2009 Biological evaluation of medical devices-Part5: Tests for in vitro cytotoxicity; ISO 10993-23:2021-10 Biological evaluation of medical devices-Part23: Test for skin irritation.

³ Nonstandard samples were used.

DISCLAIMER

The information contained herein is in accordance with the contemporary state of our best knowledge but does not absolve the user from carefully checking all supplies on receipt. We reserve the right to alter product specifications within the scope of technical progress and development and mechanical properties may vary from batch to batch. Persons receiving information are encouraged to make their own determination as to the information's suitability and completeness for their application. The results provide an indication of the product's potential biocompatibility, but they do not guarantee absolute biocompatibility in all circumstances. The provided information does not absolve the user from the obligation of investing the possibility of infringement of any third-party rights. Nothing herein shall be construed as a recommendation for uses, which infringe valid patents or as extending a license under valid patents. No information contained herein constitutes a product warranty of any kind, whether expressed or implied and all implied warranties of merchant ability and fitness for a particular purpose are hereby disclaimed by Spectroplast AG.