



Somos[®] Taurus

Stereolithography



A robust material with an unparalleled combination of thermal and mechanical performance.

Somos® Taurus brings the combination of thermal and mechanical performance that previously was not possible with stereolithography materials. Its robustness combined with a charcoal gray appearance makes it ideal for the most demanding functional prototyping and end-use applications. Parts printed with this material are easy to clean and finish. The higher heat deflection temperature of **Somos® Taurus** increases the number of applications for the part producer and user.

Key Benefits

- Superior strength and durability
- Wide range of applications
- Excellent surface and large part accuracy
- Heat tolerance up to 90°C
- Thermoplastic-like performance, look and feel

Ideal Applications

- Customized end-use parts
- Tough, functional prototypes
- Under the hood automotive parts
- Functional testing for aerospace
- Low volume connectors for electronics

Technical Data

Liquid Properties		Optical Properties		
Appearance	Charcoal	E _c	10.5 mJ/cm ²	[critical exposure]
Viscosity	~350 cps @ 30°C	D _p	4.2 mils	[slope of cure-depth vs. ln (E) curve]
Density	~1.13 g/cm ³ @ 25°C	E ₁₀	111 mJ/cm ²	[exposure that gives 0.254 mm (.010 inch) thickness]

Mechanical Properties		UV Postcure		UV & Thermal Postcure	
ASTM Method	Property Description	Metric	Imperial	Metric	Imperial
D638-14	Tensile Modulus	2,310 MPa	335 ksi	2,206 MPa	320 ksi
D638-14	Tensile Strength at Yield	46.9 MPa	6.8 ksi	49 MPa	7.1 ksi
D638-14	Elongation at Break	24%		17%	
D638-14	Elongation at Yield	4%		5.7%	
D638-14	Poisson's Ratio	0.45		0.44	
D790-15e2	Flexural Strength	73.8 MPa	10.7 ksi	62.7 MPa	9.1 ksi
D790-15e2	Flexural Modulus	2,054 MPa	298 ksi	1,724 MPa	250 ksi
D256-10e1	Izod Impact (Notched)	47.5 J/m	0.89 ft-lb/in	35.8 J/m	0.67 ft-lb/in
D2240-15	Hardness (Shore D)	83			
D570-98	Water Absorption	0.75%		0.7%	

Thermal/Electrical Properties		UV Postcure		UV & Thermal Postcure	
ASTM Method	Property Description	Metric	Imperial	Metric	Imperial
E831-14	C.T.E. -40–0°C (-40–32°F)	76.5 µm/m°C	42.5 µin/in°F	71.4 µm/m°C	39.7 µin/in°F
E831-14	C.T.E. 0–50°C (32–122°F)	105.3 µm/m°C	58.5 µin/in°F	103.4 µm/m°C	57.4 µin/in°F
E831-14	C.T.E. 50–100°C (122–212°F)	151.9 µm/m°C	84.4 µin/in°F	157.5 µm/m°C	87.5 µin/in°F
E831-14	C.T.E. 100–150°C (212–302°F)	171.4 µm/m°C	95.2 µin/in°F	173.4 µm/m°C	96.3 µin/in°F
D150-11	Dielectric Constant 60 Hz	4.6		4.8	
D150-11	Dielectric Constant 1 KHz	4.2		4.4	
D150-11	Dielectric Constant 1 MHz	3.7		3.5	
D149-09	Dielectric Strength	17.7 kV/mm	451 V/mil	17.3 kV/mm	440 V/mil
D648-16	HDT @ 0.46 MPa (66 psi)	62°C	144°F	91°C	196°F
D648-16	HDT @ 1.81 MPa (264 psi)	50°C	122°F	73°C	163°F
D3418-15	Glass Transition Temperature (DSC)	53°C	127°F	54°C	129°F

These values may vary and depend on individual machine processing and post-curing practices.

[More information at am.covestro.com](https://www.amcovestro.com)



Covestro Deutschland AG
Kaiser-Wilhelm-Allee 60
51373 Leverkusen
Germany

www.covestro.com

The manner in which you use our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, is beyond our control. Therefore, it is imperative that you test our products to determine suitability for your processing and intended uses. Your analysis must at least include testing to determine suitability from a technical, health, safety, and environmental and regulatory standpoint. Such testing has not necessarily been done by Covestro, and Covestro has not obtained any approvals or licenses for a particular use or application of the product, unless explicitly stated otherwise. If the intended use of the product is for the manufacture of a pharmaceutical/medicinal product, medical device¹ or of pre-cursor products for medical devices or for other specifically regulated applications which lead or may lead to a regulatory obligation of Covestro, Covestro must explicitly agree to such application before the sale. Any samples provided by Covestro are for testing purposes only and not for commercial use. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information, including technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed by you that you assume and hereby expressly release and indemnify us and hold us harmless from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent. These values are typical values only. Unless explicitly agreed in written form, they do not constitute a binding material specification or warranted values.

¹Please see the "Guidance on Use of Covestro Products in a Medical Application" document.
Edition: September 2021 · Printed in Germany