Somos Taurus

Description

Somos Taurus is a new addition to the (SLA) material series, and parts printed with this material are easy to clean and finish. Featuring higher heat deflection temperature, this material expands the range of applications for both part manufacturers and users. It combines thermal and mechanical properties that, until now, could only be achieved with thermoplastic 3D printing technologies such as FDM and SLS.

Features

[Print size]: 600*600*400 mm

Features: Smooth/matte surface, heat-resistant, high-detail, industrial-grade, easy to mold, wear-resistant, and excellent surface finish.

Color: Natural charcoal

Advantages: High strength and durability • Wide range of applications • Excellent surface finish and parts, high precision • Heat resistance up to 90°C • Thermoplastic-like performance in terms of appearance and feel

Disadvantages: Not UV-resistant

Recommended applications: Customized end-use parts • Durable functional prototypes • Under-the-hood automotive parts • Aerospace functional testing • Electronics • Connectors produced in small-batch

Parameters

Fluid Properties		Optical Properties		
Appearance	Charcoal grey	Ee	10.5 mJ/cm2	[Critical exposure]
Viscosity	~350 cps @ 30°C	D。	4.2 mils	[Slope of penetration depth vs In(E) curve]
Density	~1.13 g/cm3 @ 25°C	E。	111 mJ/cm2	[Exposure thickness 0.254 mm (0.010 in.)]

Mechanical Properties		UV Post-curing	UV and Thermal Post-curing
ASTM Method	Description	Metric	Metric
D638-14	Tensile Modulus	2.310 MPa	2.206 MPa
D638-14	Tensile Yield Strength	46.9 MPa	49.0 MPa
D638-14	Elongation at Break	24%	17%
D638-14	Elongation at Yield	4.0%	5.7%
D638-14	Poisson's Ratio (Lateral Deformation Coefficient)	45	44
D790-15e2	Flexural Strength	73.8 MPa	62.7 MPa
D790-15e2	Flexural Modulus	2.054 MPa	1.724 MPa
D256-10e1	Izod Impact Strength - Notched	47.5J/m	35.8 J/m
D2240-15	Hardness - Shore (D)	83	83
ASTM D570-98	Water Absorption	0.75%	0.70%
Thermal/Electrical Properties		UV Post-curing	UV and Thermal Post-curing
ASTM Method	Description	Metric	Metric
E831-14	C.T.E. -40°C - 0°C	76.5 µm/m°C	71.4 µm/m°C
E831-14	C.T.E. 0 - 50°C	105.3 µm/m°C	103.4 um/m°C
E831-14	C.T.E. 50°C - 100°C	151.9 µm/m°C	157.5 µm/m°C

E831-14	C.T.E. 100°C - 150°C	171.4 µm/m°C	173.4 µm/m°C
ASTM D150-11	Dielectric Constant, 60 Hz	46	48
ASTM D150-11	Dielectric Constant, 1kHz	42	44
ASTM D150-11	Dielectric Constant, 1 MHz	37	35
D149-09	Dielectric Strength	17.7 kV/mm	17.3 kV/mm
D648-16	HDT @ 0.46 MPa	62°C	91°C
D648-16	HDT @ 1.81 MPa	50°C	73°C
D3418-15	Glass Transition Temperature (DSC)	53°C	54°C