



## Product Data Sheet

# Somos<sup>®</sup> NeXt LV Grey

### Description

Somos<sup>®</sup> NeXt LV Grey creates tough, ABS-like parts with a high modulus while maintaining a low viscosity for effortless cleaning. Somos<sup>®</sup> NeXt LV Grey has good water resistance and thermal properties. This third generation Somos<sup>®</sup> high impact material focuses on creating quality resins that can produce tough, complex parts.

### Applications

Somos<sup>®</sup> NeXt LV Grey produces parts that are more resistant to fracture and cracking than standard SL resins. It is ideal for use in functional testing and low-volume manufacturing applications.

This resin is excellent for functional end-use performance parts, especially snap-fit designs, impellers, connectors, and sporting goods.

#### TECHNICAL DATA - LIQUID PROPERTIES

Appearance	Opaque Grey
Viscosity	~480 mPas @ 30°C
Density	~1.12 g/cm <sup>3</sup> @ 25°C

#### TECHNICAL DATA - OPTICAL PROPERTIES

E <sub>c</sub>	14.6 mJ/cm <sup>2</sup>	[critical exposure]
D <sub>p</sub>	5.16 mils	[slope of cure-depth vs. ln (E) curve]
E <sub>10</sub>	101.2 mJ/cm <sup>2</sup>	[exposure that gives 0.254 mm (.010 inch) thickness]

TECHNICAL DATA			
Mechanical Properties		Somos® NeXt LV Grey UV Postcure	
ASTM Method	Property Description	Metric	Imperial
D638M	Tensile Modulus	2,970 - 3,285 MPa	431 - 476 ksi
D638M	Tensile Strength at Yield	60 - 66 MPa	8.7 - 9.6 ksi
D638M	Elongation at Break	4.6 - 7.2%	4.6 - 7.2%
D638M	Elongation at Yield	3.0%	3.0%
D790M	Flexural Stress at 5% Strain	4.6 - 7.2%	4.6 - 7.2%
D790M	Flexural Modulus	1,843 - 2,017 MPa	267 - 292 ksi
D256A	Izod Impact (Notched)	0.30 - 0.35 J/cm	0.56 - 0.66 ft-lb/in
D2240	Hardness (Shore D)	84	84
D570-98	Water Absorption	0.36 - 0.40%	0.36 - 0.40%

TECHNICAL DATA			
Thermal/Electrical Properties		Somos® NeXt LV Grey UV Postcure	
ASTM Method	Property Description	Metric	Imperial
E831-06	C.T.E. before Tg (~44°C)	74.3 - 80.5 $\mu\text{m}/\text{m}^\circ\text{C}$	41.2 - 44.7 $\mu\text{in}/\text{in}^\circ\text{F}$
E831-06	C.T.E. after Tg (~44°C)	218 - 236 $\mu\text{m}/\text{m}^\circ\text{C}$	121.1 - 131.1 $\mu\text{in}/\text{in}^\circ\text{F}$
D150-98	Dielectric Constant and Dissipation Factor 1 kHz	$k' = 3.75, D = 0.02$	$k' = 3.75, D = 0.02$
D149-97a	Dielectric Strength	21.6 - 23.4 kV/mm	549 - 594 V/mil
E1545-05A	Tg	40 - 48°C	104 - 118°F
D648-07B	Deflection Temperature (0.46 MPa)	53 - 57°C	127 - 135°F
D648-07B	Deflection Temperature (1.82 MPa)	49 - 57°C	120 - 135°F

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