

## SLS MATERIAL SPECIFICATIONS

### NyTek™ 1200 CF

#### Highlights

- Alluring, black appearance.
- Resistance to extreme temperatures and wear.
- Optimal reproduction of detail.
- High stiffness, high tensile strength.
- Electrostatically dissipative.

#### Applications

- Underhood components.
- Wind tunnel display models.
- Well suited to applications which require superior thermal properties, with maximum performance and an extremely high SLS strength to weight ratio.

#### TYPICAL PHYSICAL PROPERTIES

Property	Test Method	English	Metric
Color/Appearance	Visual	Dark Grey	Dark Grey
Density	ASTM D792	0.0387 lb/in <sup>3</sup>	1.07 g/cm <sup>3</sup>
Elongation at Break	ASTM D638	3.6%	3.6%
Flexural Modulus	ASTM D790	500,000 psi	3,447 MPa
Flexural Strength	ASTM D790	11,600 psi	80 MPa
Heat Deflection Temp @ 264 psi	ASTM D648	228 - 350°F	109 - 177°C
Heat Deflection Temp @ 66 psi	ASTM D648	342 - 352°F	172 - 178°C
Izod Impact Strength (method A, notched)	ASTM D256	1.02 ft-lb/in	54 J/m
Tensile Modulus	ASTM D638	420,000 psi	2,896 MPa
Tensile Strength	ASTM D638	4,000 - 9,500 psi	28 - 66 MPa
Coefficient of Thermal Expansion: 77-212°F (25- 100°C)	ASTM E831	124.5 μin/in°F	224.1 μm/m°C
Coefficient of Thermal Expansion : 212-338°F (100-170°C)	ASTM E831	176.6 μin/in°F	317.9 μm/m°C
Volume Resistance	—	6.0E+02 - 7.8E+03 ohms-cm	—
Surface Resistance	—	2.9E+10 - 3.2E+10 ohms	—
Voltage Field	—	<50 volts	—

Tensile and Flexural Modulus, Flexural Strength, and Elongation values are shown as averages between X, Y and Z orientations. The SLS Carbon Fiber material has anisotropic properties that may vary and should not be used for structural applications without validation or empirical testing. ESD measurement with temperature 71.4°F and RH 35.4%.

NyTek™ is a trademark of Solid Concepts Inc. The material properties provided herein are for reference purposes only. Actual values may vary significantly as they are dramatically affected by part geometry and process parameters. Material specifications are subject to change with out notice.