

Statement of Work for High Strength Fibers

NASA is interested in evaluating the potential of producing aerospace grade structural composites from carbon nanotube based fibers with mechanical properties that compete with carbon fiber reinforced composites. The aim is to fabricate composites with specific strengths of at least 2 GPa/g/cc. Fibers having the following properties are sought to be part of this test matrix:

1. Fibers that consist of carbon nanotubes or are produced with the aid of carbon nanotubes.
2. Continuous fibers shall be available in lengths of at least 100 meters.
3. Mechanical properties of candidate fibers must have been measured and documentation provided with details of the experimental method used to measure fiber properties.
4. Fibers shall be available in volumes that can support the fabrication of articles requiring several hundred feet of continuous fibers following the initial evaluation.
5. Fibers shall be supplied within one month of contract award.
6. Fibers shall be supplied with documentation of tensile strength and tensile modulus, including a description of the method used to measure the tensile properties.
7. Fibers shall have been fabricated with a process that has been proven to be scalable to supply kilometer quantities.

NASA will use these fibers to produce fiber reinforced composites. The tensile properties of these composites will be measured. Data will be shared with the fiber producer.

The winning contractor shall supply an MSDS for the material.

The Government reserves the right to issue multiple awards under this requirement.