

Technology Title: Advanced Material Test Fixtures

Contact Information: Technology Partnerships Office
NUWC_NPT_TPEO@navy.mil
401-832-8728

Naval Undersea Warfare Center
1176 Howell St., Newport, RI 02841

SYSCOM: NAVSEA
TRL/MRL: 9

ABSTRACT

Keywords: materials; testing; material properties; composites

Accurate, reliable and comprehensive 3-D physical material testing is required for manufacturing and product development. **Advanced Material Test Fixtures** accurately characterize small swatches of



fabrics, composites, elastomers, metals, biological tissues and other complex materials, reducing the need for expensive full scale testing. The fixtures provide multi-axial and shear mechanical data for analysis in one apparatus and can be used in conjunction with finite element models for designing new materials and minimizing the number of prototypes required. Fixtures are available for licensing or for use in collaborative design of new materials.

U.S. Pat. Nos. 8,082,802; 7,204,160; 7,150,200; 7,051,600; 6,918,306 and 6,860,156

THUMBNAIL

Material test fixtures used by military to develop inflatable structures, body armor and fendering available for license or use for design services.

DISTRIBUTION STATEMENT A: Approved for Public Release; distribution is unlimited