



Composites Testing Templates

For use with MTS TestSuite™ TW Software

Supported Standards

- » Tensile
 - ISO 527-4
 - ISO 527-5
 - ASTM D3039
- » Compression
 - ISO 14126
 - ASTM D6641
- » Flexure
 - ISO 14125
- » In-Plane Shear
 - ISO 14129
 - ASTM D3518
- » Interlaminar Shear
 - ISO 14130
 - ASTM D2344

Templates

Efficiently gain accurate and repeatable results with the polymer matrix composites test templates for MTS TestSuite TW software. These test templates are easy to use and create a strong foundation for establishing a single, standardized testing methodology across geographically dispersed testing facilities. The templates support the use of a variety of strain measurement methods, including extensometers and strain gages. The pre-configured templates can be easily modified to meet your unique requirements.

Analysis

Integrated analysis tools automatically perform data reduction and calculate the required mechanical material properties. Intuitive displays and flexible, interactive data plots simplify post-test data analysis

for operators at every skill level. Interactive markers, text and construction lines enable operators to flexibly plot data and zoom in on an area of interest at any time.

Reporting

MTS TestSuite TW software equips you with flexible tools for presenting and sharing test data through detailed runtime reports that can be output to a user-friendly standard report template. Standard reports display all of the required calculations including stress-strain plots, chord modulus, strength, Poisson's ratio, and more. Raw data and test results can be efficiently exported to Excel and ASCII formats. The optional standalone MTS TestSuite Reporter Add-In for Microsoft Excel gives you absolute flexibility to generate custom and standard reports.

be certain.

Predefined Composites Testing Templates

Sample of the many Polymer Matrix Composites test standards that can be addressed using MTS TestSuite TW templates. The templates are compatible with TestSuite TW Elite and TW Express software on electromechanical and servohydraulic test systems.

	Standards	Strain Measurement Method	Axial Averaging	Transverse Strain	Reports
Tensile	ISO 527-4	Extensometer, Strain Gauge	X*1	X	Standard reports include all of the required calculations including as applicable stress-strain plots, chord modulus, strength, Poisson's ratio, and more.
	ISO 527-5	Extensometer, Strain Gauge	X*1	X	
	ASTM D3039	Extensometer, Strain Gauge	X	X	
Compression	ISO 14126	Extensometer, Strain Gauge	X		
	ASTM D6641	Extensometer, Strain Gauge	X*1	X	
Flexure	ISO 14125	Deflectometer			
In-Plane Shear <i>(Tensile Test of a ±45° Laminate)</i>	ISO 14129	Extensometer, Strain Gauge		X	
	ASTM D3518	Extensometer, Strain Gauge		X	
Interlaminar Shear <i>(Short Beam Method)</i>	ISO 14130	None			
	ASTM D2344	None			

*1 Strain gauges only

MTS can provide pre-packaged templates upon customer request for a wide array of additional composite test methods.



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