

## DMA (Dynamic Mechanical Analyser)



DMA, uses to determine; polymer solutions, composites and wide range of materials force, tension/stress, strain, frequency and temperature physical properties such as measurements that are analytical instruments. When the material is deformed by the mechanical stress applied to the material, the energy loss characteristics are determined by measuring the phase shift in displacement according to the applied force. DMA, temperature-dependent visco-elastic records the properties, and modulus of elasticity by applying force determines the damping coefficient. DMA can be used for two. First, tensile tester it focuses only on elastic particles. Second, stress testing devices, linear it works out of the

viscoelastic range. DMA works within the viscoelastic range and is also more sensitive to the construction.

### DMA Applications:

- Food Sector
- Aviation Sector
- Textile Sector
- Automotive Industry,
- Material Analysis

**Instrument Model:** TA Instruments Q800

### Instrument Features:

<b>Maximum Force:</b>	18 N
<b>Minimum Force:</b>	0,0001 N
<b>Force Sensitivity:</b>	0.00001 N
<b>Tensile Resistance:</b>	1 nm
<b>Tan <math>\delta</math> Sensitivity:</b>	$\pm 1\%$ 0.0001
<b>Temperature Range:</b>	-150 to 600 ° C
<b>Heating Speed:</b>	20 ° C / min. 0.1 ° C