

## Thermogravimetric Analysis and Differential Scanning Calorimetry



Thermogravimetric Analysis or TGA is a type of testing that is performed on samples to determine changes in weight in relation to changes in temperature. Such analysis relies on a high degree of precision in three measurements: weight, temperature, and temperature change. As many weight loss curves look similar, the weight loss curve may require transformation before results can be interpreted. A derivative weight loss curve can be used to tell the point at which weight loss is most apparent. Again, interpretation is limited without further modifications and deconvolution of the overlapping peaks may be required.

TGA is commonly employed in research and testing to determine the characteristics of materials such as polymers, degradation temperatures, absorbed moisture content of materials, level of inorganic and organic components in materials, decomposition points of explosives, and solvent residues. It is also often used to estimate the corrosion kinetics at high temperature oxidation.

Models	Location
Perkin Elmer (TGA)/ Pyris 1 (DSC)	K013

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