

Moisture and volatiles content by TGA

INTRODUCTION

TGA is frequently used to determine the moisture and volatiles content of polymers, biofuel, chemicals, pharmaceuticals and other materials. Controlling the moisture and volatile content of such materials is important because it can impact their properties, quality and safety.

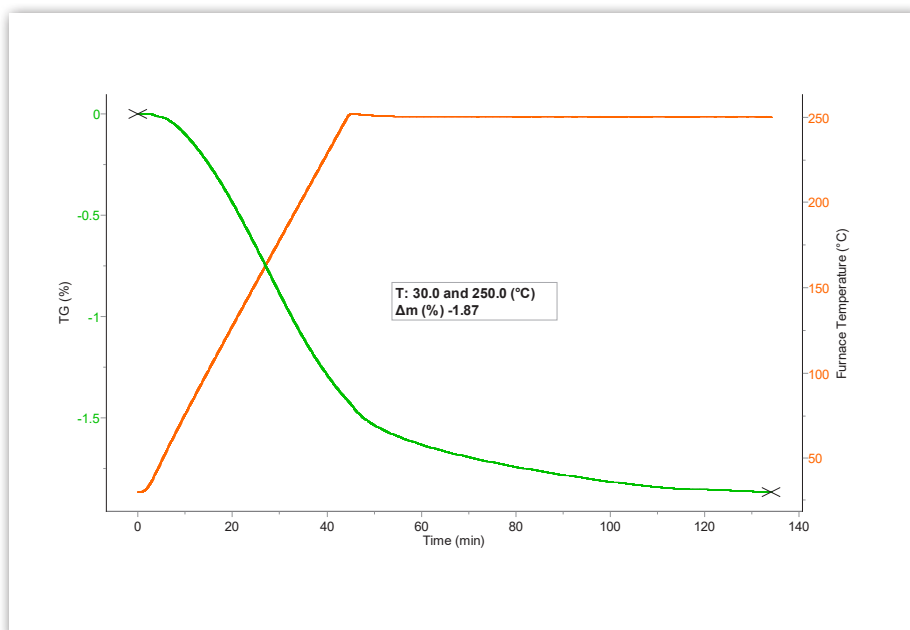
Here, the moisture and volatiles content of Nylon 6,6 was determined using the SETLINE TGA.

EXPERIMENT

A sample amount of 40 mg of Nylon 6,6 was weighed and inserted in an alumina crucible.

The following experimental conditions were applied on the sample:

- Heating from 25°C to 250°C at 5 K/minute
- Isotherm at 250°C for 90 minutes
- Atmosphere: nitrogen flow at a rate of 30 ml/min



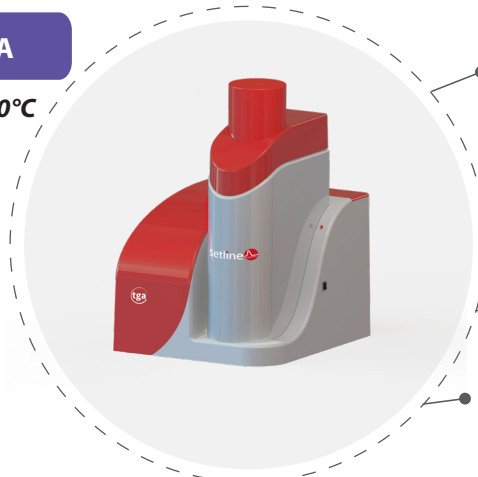
RESULTS AND CONCLUSION

The result shows a mass loss of 1.87% corresponding to the level of humidity and volatiles inside the material. The determination of moisture content requires an accurate measurement and SETLINE TGA, thanks to its hang down balance is well adapt for such test.

INSTRUMENT

SETLINE TGA

Ambient to 1100°C



ACCURACY MADE ACCESSIBLE

with a simple and reliable hang-down balance, specially designed for TGA applications

LOWER COST OF OWNERSHIP

through simplified maintenance and a Replacement Parts Guarantee

TECHNICAL & APPLICATION SUPPORT

for fast expert help with any questions

CALISTO 2.0 EXCLUSIVE SOFTWARE

for intuitive and easy data handling