

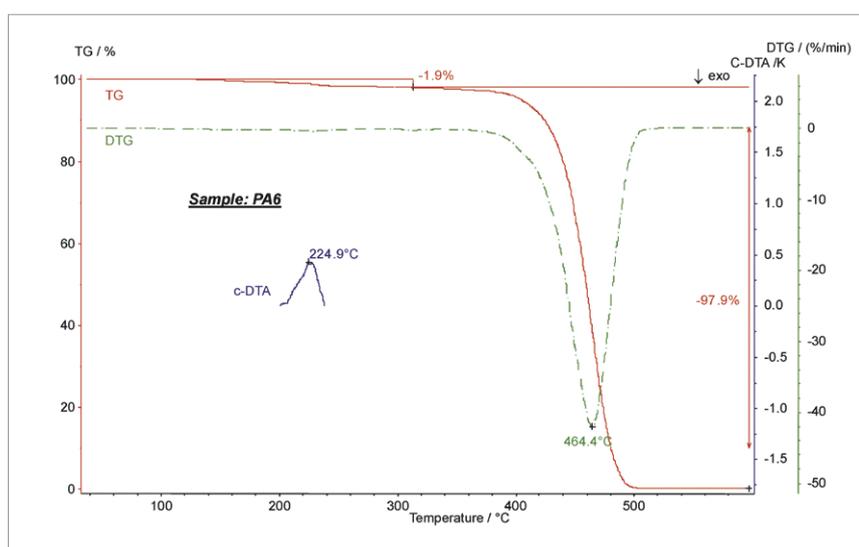
APPLICATION SHEET

POLYMERS – TEXTILES

POLYAMIDE 6

Polyamide is a polymer containing the amid group (–NHCO–) in the repeat unit. Polyamide 6 is one of the most important nylons commercially, being a major

fibre-forming polymer, as well as a useful engineering plastic. Polyamides can absorb the atmospheric moisture what affects their mechanical properties.



Instrument

TG 209 **F3 Tarsus**®

Test Conditions

Temperature range	35 ... 600°C
Heating rate	20 K/min
Atmosphere	Nitrogen at 20 ml/min
Sample mass	9.94 mg
Crucible	Al ₂ O ₃

Results

The first mass loss of 1.9% is most probably due to the evaporation of water. The calculated DTA signal shows an endo-thermic effect at 224.9°C (peak temperature). It is due to melting of the sample. As comparison, a DSC measurement was carried out on the same sample (see application sheet polyamide 6, DSC 200 **F3 Maia**®). The peak temperature of the melting was detected at 224.5°C. The second mass-loss step of 97.9% is due to degradation of the polymer.