

# APPLICATION SHEET

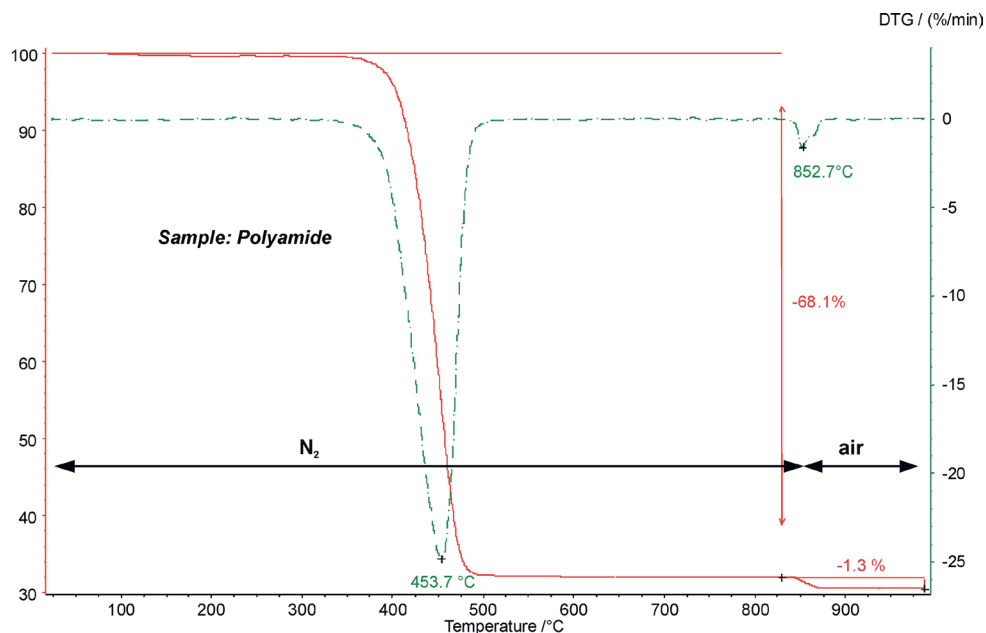
Polymer · Polymer Manufacturing  
TG 209 **F3 Tarsus**<sup>®</sup>

## Polyamide (GF-Filled)

### Introduction

Polyamide is a polymer containing the amid group (-NHCO-) in the repeat unit. They can both occur naturally, examples

being proteins, such as wool and silk, and can be made artificially, examples being nylon, Kevlar<sup>®</sup> and sodium poly(aspartate).



### Test Conditions

Temperature range: 35 ... 850°C in nitrogen  
850 ... 1000°C in air  
Heating rate: 20 K/min  
Atmosphere: Nitrogen/air at 20 ml/min  
Sample mass: 3.61 mg  
Crucible: Al<sub>2</sub>O<sub>3</sub>

### Test Results

The mass loss of 68.1% at 453.7°C (peak temperature of the DTG curve) is due to dehydration of the polymer. The combustion of carbon black occurs after switching to air. The residual mass of 30.6% is related to the glass fiber amount.