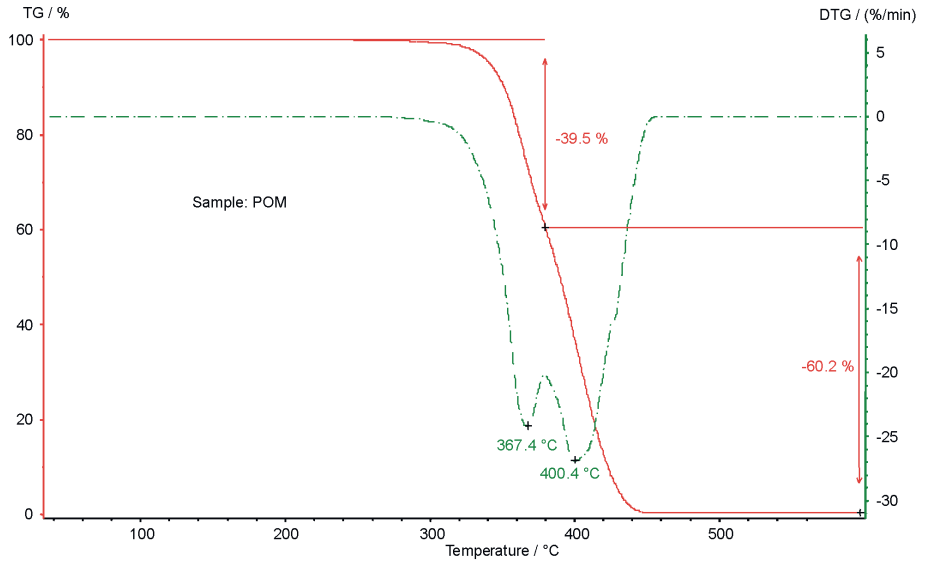
APPLICATION**SHEET**

Polymer Manufacturing
TG 209 ***F3*** *Tarsus*®

Polyoxymethylene

Introduction

Polyoxymethylene, also known as polyacetal or polyformaldehyde, is a thermoplastic with good physical and processing properties. It has good mechanical properties with respect to stiffness, fatigue endurance and creep resistance and a reasonably high impact strength. It is therefore widely used as an engineering plastic to produce gears, bushings and other mechanical parts.



Test Conditions

Temperature range:	35 ... 600°C
Heating rate:	20 K/min
Atmosphere:	Nitrogen at 20 ml/min
Sample mass:	9.48 mg
Crucible:	Al_2O_3

Test Results

Degradation of the polyoxymethylene occured in two steps, starting slightly above 300°C. The first one at 367.4°C (peak of the DTG curve) is related to a mass loss of 39.5%. The second mass loss between 380 and 450°C amounts to 60.2%. Both mass-loss steps can be referred to the cracking of the polyester backbone. Nearly no carbon black is formed during the pyrolytic decomposition of the material.

NGB · Application Sheet 033 · E · 0621 · Technical specifications are subject to change.

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