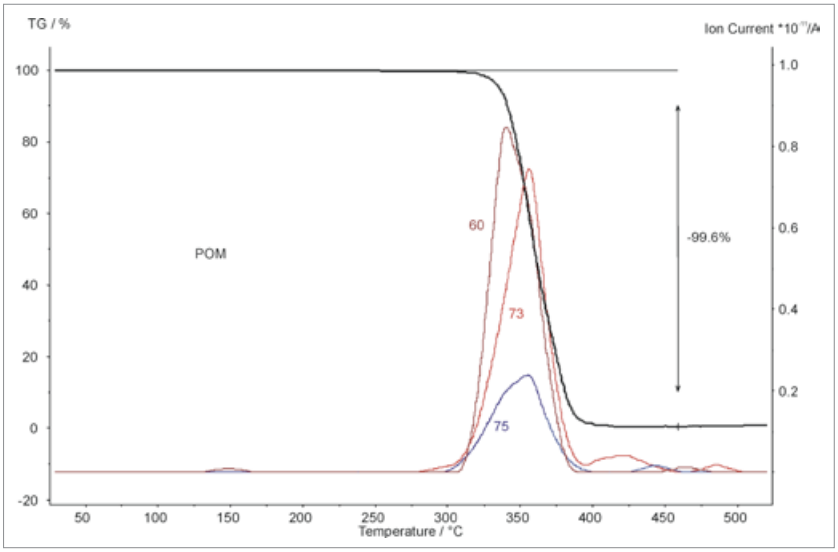
APPLICATION**SHEET**

POLYMERS – POLYMER MANUFACTURING

POLYOXYMETHYLENE (POM)

Polyoxymethylene (POM) is commonly used as a direct replacement for metals due to its stiffness, dimensional stability and corrosion resistance. Polyoxymethylene is an engineering plastic used to make gears, bushings and other mechanical parts. As the most important polyacetal resin, it is a thermoplastic with good physical and processing properties.



Instrument

TG 209 ***F1*** *Iris*® – QMS 403 *Aeolos*®

Test Conditions

Temperature range	RT … 700°C
Heating/cooling rates	20 K/min
Atmosphere	Nitrogen at 40 ml/min
Sample mass	12 mg
Crucible	Alumina
Sensor	Platinel

Results

During the pyrolysis of POM, the monomer (30 amu) occurs in great amounts (not shown in this figure), but also the dimer, [-CH_2O-]2 (60 amu) and higher mass numbers (i.e. 73, 75 amu) can clearly be seen. An almost completed decomposition was measured up to 500°C.

NGB · AS · 076-2006 · EN · 07/13 · Technical specifications are subject to change.

NETZSCH-Gerätebau GmbH
Wittelsbacherstraße 42 · 95100 Selb · Germany
Tel.: +49 9287/881-0 · Fax: +49 9287/881505
at@netzsch.com · www.netzsch.com