

APPLICATION SHEET

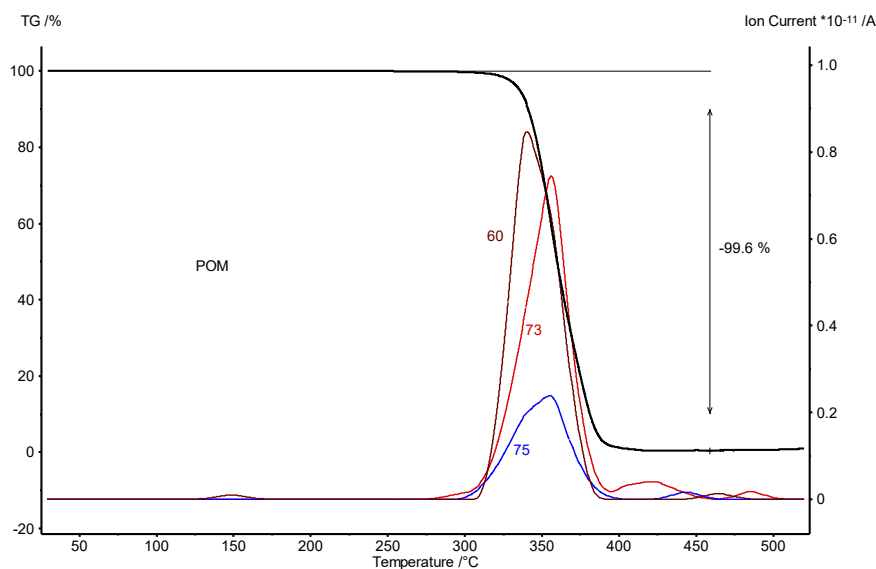
Polymers–Polymer Manufacturing TG 209 **F1 Iris®**-QMS 403 **Aëolos®**

Polyoxymethylene (POM)

Introduction

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.



Test Conditions

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

Test Results

During the pyrolysis of POM, the monomer (30 amu) occurs in great amounts (not shown in this figure), but also the dimer, [-CH₂O-]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.