

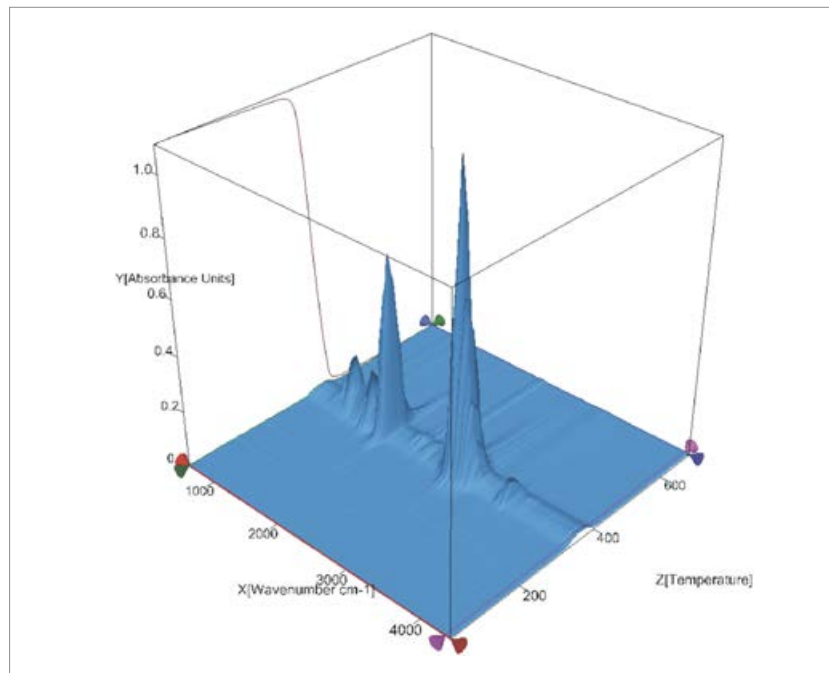
# APPLICATION SHEET

## 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**® – FTIR

### Test Conditions

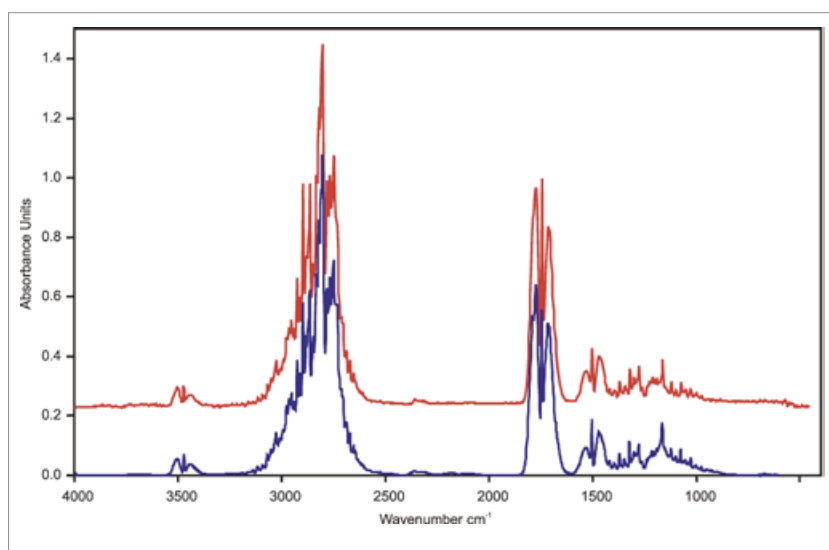
Temperature range	RT ... 700°C
Heating/cooling rates	20 K/min
Atmosphere	Nitrogen at 40 ml/min
Sample mass	12 mg
Crucible	Alumina
Sensor	Platinel

### Results

Figure 1 depicts the 3-dimensional plot of the FTIR spectra with the TG curve. During the pyrolysis of POM, formaldehyde is the dominant decomposition product. This is confirmed by a library spectra comparison which is shown in figure 2 (red = library spectra, blue = sample spectra at 358°C).

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