polymer problems identified



simply, efficiently

Ensure raw materials, intermediates or finished products comply with your quality standards with Thermo Scientific™ Spectroscopy Solutions.



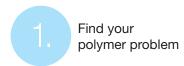


Nicolet iN[™]10 IR microscope Nicolet iS50 modules and accessories



Plastic or Polymer Problems?

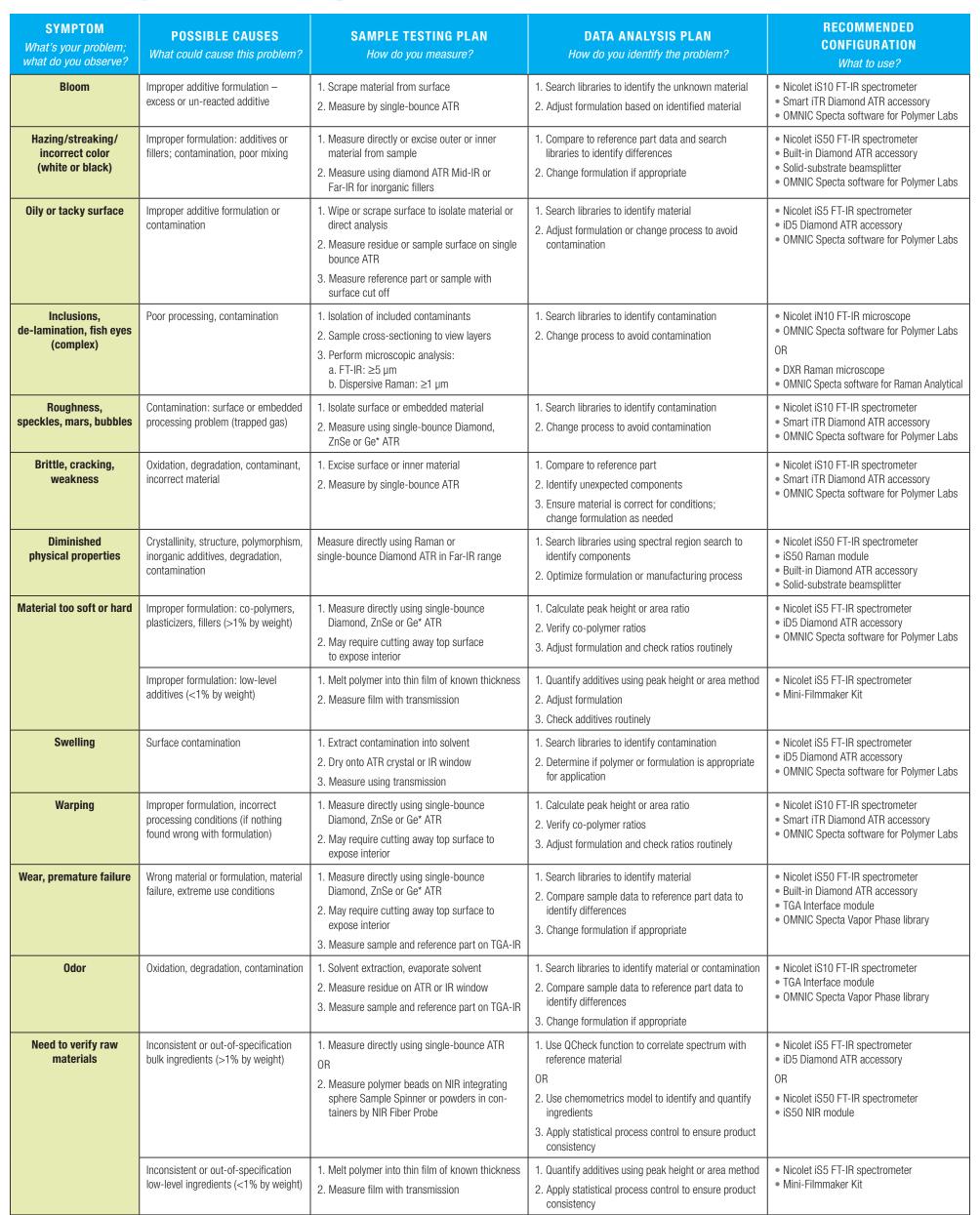
Use the Thermo Scientific Polymer Troubleshooting Guide to find Answers.



2. Learn how to analyze the problem

3.

Select spectroscopy solutions to help your analysis



TGA-IR = Thermal Gravimetric Analysis Infrared; NIR = Near infrared; FT-IR = Fourier Transform infrared; ATR = Attenuated total reflectance.



^{*} Ge for Carbon-filled polymers

Product Selection Guide

Spectroscopy Solution by Task and Sample Property

Using the table below, find your task and sample feature to select the instrument configuration and solve your polymer problems.



Polymer Analysis Kits

We offer kits that combine commonly used tools for polymer analysis. They include our patented Multi-Component Search, a 13,000 compound spectral library and 240-page Infrared Spectroscopy of Polymers Knowledge Base along with appropriate sampling device(s). For more details, see the FT-IR Polymer Analysis Kit flyer (FL52273_E).

Thermo Scientific Instruments		QA/QC Verification			Material Characterization			
	Task	Incoming ingredients In-process materials Finished products		• Pellet composition	 New product development Failure analysis Deformulation studies Reverse engineering 			
	Property	Component Concentration >1%	Component Concentration <1%	Bulk	Physical/Chemical Formulation	Fillers, Inorganic Pigments	Crystallinity, Morphology	Multi-layer Films, Small Inclusions
Nicolet iS5 FT-IR spectrometer		iD3 ATR* or iD5 ATR* accessory	Hot-pressed Film Kit					
Nicolet iS10 FT-IR spectrometer		Smart iTR* accessory	Hot-pressed Film Kit	Smart NIR Integrating Sphere	In-compartment TGA accessory + Mercury TGA software			
Nicolet iS50 FT-IR spectrometer		Built-in Diamond ATR* or Smart iTR* accessory	Hot-pressed Film Kit	iS50 NIR module	TGA/IR accessory + Mercury TGA software	Built-in Diamond ATR + Solid Substrate beamsplitter	iS50 Raman module	
Nicolet iN10 microscope		Micro Tip ATR* accessory	Hot-pressed Film Kit		Nicolet iZ10 module + In-compartment TGA accessory + Mercury TGA software			Nicolet iN10 Infrared microscope
DXR Raman microscope						DXR Raman microscope	DXR Raman microscope	DXR Raman microscope

^{*} ATR is a useful tool for basic material characterization



Thermo Scientific Nicolet iS5 FT-IR spectrometer For high productivity QA/QC of polymers and ingredients



FT-IR spectrometer
For high performance, polymer
QA/QC and analytical services

Thermo Scientific Nicolet iS10



FT-IR spectrometer
For polymer method development, deformulation, troubleshooting and research



Thermo Scientific DXR Raman microscope or Thermo Scientific Nicolet iN10 microscope

For small particle identification or high spatial resolution polymer characterization needs

Need more help? Talk to a spectroscopy expert by calling 1-800-532-4752. Watch how-to videos and download application notes from our Polymer Resource Center at: www.thermoscientific.com/polymers

